Clinical Lecture
ON
ALCOHOLIC ASTHENIA.

Delivered at the Northern Hospital, Liverpool,

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GENTLEMEN,—The various phases of alcoholism have been so well threshed out from all points of the compass that it might seem impossible to approach the subject from any fresh aspect; however, although we may be able to throw no new light on the question, we have almost daily new illustrations of its baneful influences. You do not require to go to the tomes of a medical library to study the effects of alcohol. Unfortunately, we have greater opportunities of viewing the evil which it has wrought than the good which it accomplishes; the former is so widely and so plainly written that he who runneth may read, while it often takes a discriminating eye to discern the latter. It is with its evil consequences I have in this lecture to deal, and from the condemnatory remarks which I shall have to make on its use, or rather abuse, you may (as a patient told me a few days ago) almost think I am a teetotal doctor. I have no wish to earn such a distinctive title, even if it were true. Medical men are not the custodians of the public morals, and I think it would be a great mistake if they attempted to become so. The abuse of alcohol is a social problem which has much deeper and wider roots than many of our teetotal friends are willing to admit. If you stopped its use to-day, you would have a much worse drug in its place to-morrow. However, our duty as medical men is not merely to cure our patients, but also to instruct them in the line of prevention; and as alcohol is a potent factor in the production of many diseases, we should err in our duty if we did not warn them against its abuse.

An admirable lecture by Dr. Samuel Wilks,[1] "On the Indiscriminate Use of Alcoholic Stimulants in Disease," delivered twenty years ago, is well worthy of perusal. Not one word which he then stated has ever been seriously controverted, and certainly never disproved. He showed that alcohol was not a stimulant in the proper sense of the term, but a sedative. It does not enable a man to do more or better work, but it soothes an irritable nervous system when the work is over. Alcohol blunts the sensations, and makes a man more oblivious to his moral and physical infirmities. Of recent years there has been a growing tendency to curtail the use of alcohol both in health and disease, and I am inclined to think that in the present day it is not much abused in medical prescriptions. The public, however, still believe it to be a valuable means of support, a tonic *par excellence*, and the idea of it producing asthenia has not yet got beyond the medical mind. Tonics improve the vascular tone, alcohol diminishes it, yet the idea of its tonic and supporting influence is so strongly rooted in the public mind that it is often difficult to restrain the friends of patients from administering it in cases where it would be highly injurious.

Alcohol is a potent agent in producing vaso-motor paresis, and the condition of the bloodvessels often affords valuable indications for its use in disease. Unfortunately this paretic influence is so agreeable to alcoholic tipplers, that it is too frequently established and too constantly maintained. In my paper on the "Etiology of Aneurysm"[2] I showed that primary mesarteritis, or fatty degeneration of the media, "occurs over extensive arterial tracts, and is generally found in alcoholic drinkers of sedentary habits. It is associated with a flabby condition of body and fatty degeneration of the muscles, is easily recognised by the defective arterial tonicity, and gives rise to badly regulated blood supply, with consequently imperfectly nourished tissues." Further experience has confirmed the view then expressed. The power of alcohol to lessen vascular tone can often be used beneficially, but when this state has been maintained until degenerative changes have ensued it is difficult to repair the damage produced. Alcoholic drinkers usually imbibe large quantities of liquids, which, however useful as diluents, increase the bulk of fluid in circulation, and so any lessening of the work of the heart by the reduction of the peripheral resistance is more than counterbalanced by the increment in the fluid it has to drive. The large vascular area is well filled, the tissues get well soaked, and the individual presents a rounded outline, few angularities, and altogether, to the uneducated eye, has a much healthier appearance and happier frame of mind than his leaner and more temperate fellow. Soon the tables are turned, degenerative changes quickly set in, it may be primarily of the circulatory system, so that not only do the bloodvessels and muscles, as we have stated, suffer from fatty degeneration, but the heart itself; the cardiac asthenia becomes more and more pronounced; there is not much force imparted to the blood, which thus moves slowly; and under the increased static condition fluid transudes very readily through the walls of the capillaries, and is not so easily reabsorbed; so we get dropsy. On the other hand, the excretory organs may be first affected, excrementitious products retained in the blood, and eventually the cardiac mischief complete the life history.

In the *Asclepiad*[3] there recently appeared a very vivid word-picture of alcoholic asthenia of the heart, in Dr. B. W. Richardson's graphic and fluent style of writing, which I would strongly commend to your notice. The patient who will now come before you was sent in under my care by my friend, Dr. G. G. Stopford Taylor, who was anxious to see what could be done to save a life which was being certainly extinguished by the administration of brandy contrary to Dr. Taylor's instructions. The following is an abstract of the case, taken from the copious notes of our late house-physician, Dr. G. Thompson.

Case of chronic alcoholism, cardiac asthenia, extensive anasarca, and delirium; urine and fæces passed involuntarily; great muscular atrophy; treatment by massage &c.; gain of 60 lb. in weight; cure.—C. P——, aged fifty years, confectioner, was admitted to the Northern Hospital, under my care, on Jan. 31st, 1887. Owing to this patient's mental condition it was impossible to obtain from him any definite information as to the history of his illness, but from other sources we learned that he was a man of intemperate habits, who had been long addicted to the consumption of large quantities of beer. For some months he was confined to the house and bed with increasing weakness and dropsy, and latterly he had been almost fed on brandy through the misdirected attention of a drunken spouse. Otherwise he seemed to be a man who had a good constitution, without any hereditary tendency to disease. He is of average height, and when in health weighed between eleven and twelve stones.

Condition on admission.—He has a singularly happy, careless expression, is rather incoherent and rambling in his conversation, and his memory is very defective. There is great œdema of the lower extremities and dependent parts of the body. Along the thoracic and abdominal parietes there are large œdematous folds, which give a great apparent width to the trunk. There is no œdema of the face or arms. Tongue moist, rather flabby, and slightly furred. Appetite moderate. The abdomen is flaccid and moderately tympanitic. No ascites. Liver dulness four inches and a half. Bowels constipated. He has a large left scrotal hernia. Respiratory system: He has some cough, and a little purulent expectoration. Over the lungs anteriorly there is no dulness on percussion. Vocal fremitus equal. The breath sounds are harsh, but there are no accompaniments except towards the left axilla, where there are a few medium crepitations. Posteriorly, some dulness at left base; otherwise percussion fairly resonant on both sides. Vocal fremitus and vocal resonance about normal. Over right back breath sounds are harsh, but there are no accompaniments. Over left back breath sounds are faintly bronchial, accompanied by a good deal of medium and large crepitations and an occasional rhonchus. Circulatory system: Pulse 100 per minute, regular, of moderate volume, but easily obliterated. Arteries large and slightly atheromatous. The upper border of heart dulness is on the level of the third costal cartilage. The apex beat cannot be felt, but percussion and auscultation locate it in the fifth interspace in nipple line. Right border three-fourths of an inch to the right of the mesial

[1] THE LANCET, vol. i. 1867, p. 505.
[2] Liverpool Medico-Chirurgical Journal, July, 1881.
[3] Vol. iii., p. 193.

line. There is pulsation in the epigastrium. Heart sounds feeble. Urine four ounces in twenty-four hours; acid; sp. gr. 1018; no albumen, and no deposit. There is some impairment of sensation in lower limbs; nerve impressions delayed one-fourth to half a second; no motor paralysis; superficial reflexes slightly present. Pupils small. He was placed on ordinary diet, and allowed very little fluid. Ordered two grains of citrate of caffeine every three hours.

Feb. 4th: Urine twelve ounces; sp. gr. 1020; no albumen. Bowels confined. He is very drowsy and listless. Pupils contracted. Ordered caffein citratis, 2 gr.; liq. strychnini, 3 m.; aq. ad 1 fl. oz.; a draught to be given every three hours. He was also ordered one ounce of sulphate of magnesium each morning.—10th: He passes from twelve to twenty ounces of urine daily. Pulse 84, rather stronger. Temperature has ranged between 98·4° and 99·6°. The anasarca is slightly less. To-day there is some friction in the left axillary region, for which there is ordered a mustard and linseed poultice. Bowels open.—17th: The breath sounds are very harsh all over chest, and numerous rhonchi; no dulness on percussion; vocal resonance normal. Respiration 28; pulse 84; temperature 100·0°. Œdema declining. He was now ordered a mixture of carbonate of ammonium, squills, and senega.—21st: Takes his food badly; complains of thirst. There is still some bronchitis. Respiration 22; pulse 96 to 100. Urine increased in quantity, but passed involuntarily. He sleeps very little, and is so very noisy at night that he has to be moved into a private ward. He was ordered a fish diet, with sago pudding and a pint of milk.—24th: He is still very delirious; incontinence of urine and great prostration. Temperature 98° to 99°; pulse 102; respiration 24. Ordered the addition of ten minims of tincture of digitalis to each dose of the mixture of the 17th.

March 4th: Temperature subnormal; pulse 88; respiration 24. Urine can be occasionally collected, and on the 2nd it measured forty ounces. Mutton broth added to his diet.—8th: The anasarca is nearly gone, and with its disappearance the emaciated condition of the body is being displayed. He is rather quieter, though still very incoherent and rambling in his speech. The urine is occasionally passed involuntarily. Pulse 84 to 96. He was now placed on a mixture of digitalis and nux vomica.—15th: His mental condition is improved, but he is more prostrate. The œdema is gone, and the body is extremely emaciated. There are numerous congestive râles at the bases of both lungs, and there is some muco-purulent sputum. Temperature 98° to 99°; pulse 88 to 92, very feeble; respiration 28 to 40. Urine and fæces passed involuntarily.—24th: He is coughing very little now, but he does not seem to gain any strength. He is very drowsy; inclined to sleep all day. Temperature 98° to 99°; pulse 88, very feeble; respiration 16 to 26. Heart sounds barely audible. Urine and fæces passed involuntarily. Ordered a liberal milk diet, bread-and-butter, and two eggs.—30th: He seems to get more and more emaciated, so that there is now very little left except the skeleton. Pulse 52, feeble, and very intermittent. Heart sounds exceedingly weak. Have been lately trying to overfeed him; ordered to-day one pound of minced meat daily.

April 6th: Temperature has ranged between 98° and 99°. Pluse rather variable, about 60, very feeble. Ordered five grains of carbonate of ammonia, and ten minims of tincture of nux vomica, thrice daily, in lieu of his last mixture.—11th: He has been very prostrate lately, and fainted on two occasions when moved for sanitary purposes. To-day he is rather more lively, and the pulse is slightly stronger; it is now 60 per minute, though for several days it has been only 44. Temperature 98°. No control over bowels or bladder. I have recently been proposing to treat this patient by general massage, but as he is apparently in a dying condition, the question is deferred for the present, lest any slight shock or movement might arrest the extremely feeble heart, and so the treatment get some blame to which it was not entitled.—15th: Pulse 68, weak, and very intermittent; heart sounds scarcely appreciable; there is a faint mitral systolic bruit.—19th: He is no worse to-day, but could scarcely be in a more helpless condition. His heart sounds are merely appreciable as a faint *susurrus*, and at the apex the first sound is replaced by a slight systolic murmur; pulse small and easily compressed. Temperature 98° to 98·6°. Urine and fæces passed involuntarily. He lies helplessly on his back, without any attempt at movement. He is emaciated to an extreme degree; his abdomen is completely collapsed, so that the anterior wall lies back against the spine, and the lower borders of his large thorax stand prominently out. In short, his physical conformation looks exactly like a large skeleton with a tight skin drawn over it. When weighed two days afterwards he was found to be only 85 lb. We began a course of general massage to-day. He was placed on a milk diet, which was soon increased, so that on the 24th he was taking four pints of milk, a cup of coffee, two ounces of butter and a fair supply of bread, two eggs, a pint of raw meat soup, a chop, and a few potatoes. These last two articles had to be stopped on the 26th on account of diarrhœa, but they were again resumed on the 30th, in addition to fish, which was ordered on the 28th.

He gained 1½ lb. in weight the first week of massage, 3 lb. the second week, 8 lb. the third, 5 lb. the fourth, and 8 lb. the fifth week. He is now (May 24th) very much better; his mental condition is all right, and there is a very decided gain in strength as well as flesh. His pulse is 84, much stronger, and the heart sounds are clearer; the mitral systolic bruit is still present. After the first three weeks of massage he had some control over the bladder and bowels, and part of the urine could be collected. He now knows when the bowels are going to be moved, but he had frequent mishaps with his urine until May 31st, when the incontinence ceased. He then weighed 116 lb., having gained 31 lb. in six weeks. On May 25th he was ordered a mixture of sulphate of iron, quinine, and strychnine.

He was now allowed to sit up for a short time each day, and after a little he was assisted at taking a few steps through the ward. The massage and the high feeding were continued.

June 28th: His progress has been highly satisfactory, having gained during the last four weeks 23 lb. in weight. He now weighs 139 lb., showing a total gain of 53 lb. during the ten weeks' massage. The heart sounds are now about normal, and there is no murmur. Since he began to move about there has been slight œdema of the feet after he has been up for some time, but this is now lessening. He has a little difficulty in getting on his feet and steadying himself, but when he has accomplished this he can then walk with the aid of a stick. There is partial paralysis of the extensor muscles in the front of both legs, so that he walks with an equinal gait. He walks with a very wide base, the feet turned out, and raised high to prevent the drooping toes from hitching against the floor. This paralysis was soon cured by the application of the galvanic current. The massage was continued in a modified form till the end of July, when it was stopped.

Sept. 20th: You see him to-day in excellent health and strength. He now weighs 145 lb. without clothing, showing a total gain of 60 lb. in weight. You can examine his whole body; about all you will find amiss are some bad teeth, and a large reducible scrotal hernia. We had some difficulty in getting a truss to fit him, but, having succeeded, his rupture now causes him no inconvenience, and I certainly have no intention of recommending him to undergo any operation for the radical cure of hernia, but I have no objection to the attention of a dentist.[2]

Such, gentlemen, is a brief history of what, I think, I may term a remarkably successful case, a case which reflects the highest credit on our nursing staff. The patient has been cured of his disease, and, I trust, cured of his taste for alcohol. Of its baneful effects he has had ample experience, and if "experience teaches fools," I think he has a sufficient modicum of common sense left to derive some benefit from his lesson. We shall now cease to be his custodians, and I hope he will be able to withstand the temptations to which he will, no doubt, be frequently exposed.

There are many points in the case narrated which merit some serious consideration, and from which I hope I may be able to deduce some practical teaching. In such cases as this, and even in those of much less severity, it is a disputed point as to the advisability of suddenly cutting off all supply of alcohol—whether it would not be better and safer to gradually taper it down. It is argued that it is an error to abruptly interfere with any long acquired habit; in cases of alcoholism where the nervous system has been long accustomed to a stimulus, there is apt to be collapse when the supply is cut off. I have seen both plans tried, and I am convinced that so far as the temporary well-being of the patient is concerned a moderate allowance of alcohol may be given in many cases with advantage, but I am equally convinced that no cure can be affected while the alcohol is continued. For my own part, I remove the cause at once,

[2] Jan. 10th, 1888.—I visited this man to-day, and found him in excellent health.

and this is in accordance with the practice of many of our best physicians; therefore, if it be an error, I err in good company. No doubt alcohol relieves the feeling of great depression which is invariably present in these cases. It causes vaso-motor paresis, quickens the action of the heart, and for a time gives a plentiful supply of blood to that organ and the brain, and thus a sense of comfort is experienced which attests to the value of the drug. Soon, however, the effects pass off, leaving the body more exhausted than before, and thus a renewal of the dose is called for. The effects are as evanescent as the Irishman's experience of champagne: "It was a most deceitful sort of drink; when he thought that he was comfortably drunk for the rest of the evening, he found that in an hour he was quite sober." When the jaded heart and brain are completely worn out by these repeated stimulations, if rest will not save them, the desired end is not likely to be attained by any further whippings.

(To be concluded.)

ABSTRACT OF

The Lettsomian Lectures

ON

SOME POINTS IN THE SURGERY OF THE URINARY ORGANS.

Delivered before the Medical Society of London,

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LECTURE I.

Urine fever and toxic urine.—The formation of stricture tissue in reference specially to the treatment of urethral stricture.

MR. PRESIDENT AND FELLOWS,—Let me, in the first place, thank you for permitting me to address your ancient and learned Society in the capacity of Lettsomian Lecturer for the present session, and at the same time ask your indulgence whilst I attempt to follow in the direction selected by many who in preceding me in this chair have so largely contributed to the practical advancement of medicine and surgery.

It is now some years since my attention was directed to the circumstances under which fever was occasionally seen in connexion with various lesions involving the urinary tract, and it appeared to me that a further knowledge of the etiology of what I would speak of as urine fever, as opposed to ordinary wound fever, might be of service to us as practical surgeons. In practice we have long been accustomed to recognise after injuries and operations a form of excitement which is generally known as wound or traumatic fever, the development of which, since the due recognition of those principles upon which Listerism is based, has been considerably restricted, if not entirely abolished. In striking contrast with this we have a distinct form of fever, not unlike ague in many important respects, which is alone seen in lesions involving the urinary tract, more especially internal urethrotomy, accidental wounds of the urethra, and the introduction of a catheter or a bougie.

Some years ago, in a case of extremely tight stricture, I performed an internal urethrotomy on a young and otherwise healthy male. Three hours afterwards he had a rigor, followed by high temperature, convulsions, and suppression of urine, and in forty-six hours he was dead. Post-mortem examination failed to prove anything, except that the operation had been properly performed.

In the course of last year I saw a boy, eleven years of age, who, having ruptured his urethra by a fall, had retention of urine for thirty hours; a catheter was passed and retained. Next day the temperature rose to 105° F.; the patient had severe convulsions, and became comatose. He died twenty-four hours after the introduction of the instrument. I could not help observing that so long as this patient had retention he was comparatively safe; when, however, an opportunity was afforded to the urine of coming and continuing in contact with the laceration in the urethra by means of the retained catheter, then a process of acute poisoning seemed to commence, which speedily terminated in death.

In 1874 a healthy middle-aged man was under my care for a tight urethral stricture, for which in the course of treatment, preliminary to dilatation, a metal instrument carefully passed was followed by some very slight bleeding. Four hours after this he had a rigor; the temperature went up to 103° F.; this was followed by a succession of rigors, vomiting, and a very scanty excretion of urine. The pulse was quick and thready, the tongue dry and brown, and there was a tendency to drowsiness, with occasional delirium. After ten days he recovered, though still complaining of muscular pain and prostration.

Illustrations such as these and others that I could quote seemed to indicate that the presence of urine in a wound, under certain circumstances, was capable of generating an aguish form of pyrexia, which I shall speak of henceforth as urine fever. I am aware that some authorities are accustomed to speak of all the phenomena I have just illustrated under the one name of urethral fever. Such a term, I think, is misleading, inasmuch as it seems to connect the symptoms produced with the precise part rather than with the process, for wherever throughout the urinary tract urine can be placed under certain conditions, there can all the phenomena usually associated with the term urethral fever be produced. With the view of endeavouring to throw some light on the causation of this, I determined some years ago to investigate (1) the relationship between urine and a wound which leads to the development of urine fever, and (2) the probable nature of the influence or material producing it.

In the first place, it appeared to me that the development of urine fever might be traceable to the kind of contact that existed between a wound and the urine. With a view to testing this, I treated a considerable number of urethral strictures which were unsuitable for dilatation by internal urethrotomy, and followed this immediately by a median cystotomy, introducing a full-sized drainage tube into the bladder, and I soon found that as was my drainage so was my freedom from fever; urine fever only occurred where the former was imperfect. When urine, even in very small quantities, was pent up in a recent wound, fever resembling ague invariably followed; when, on the other hand, urine was allowed to escape freely and continuously, as after a lateral lithotomy, no such symptoms were developed. It was further observed that in cases where it was impossible to obtain perfect urine drainage, the urine might, so to speak, be sterilised by local or general measures. Solution of corrosive sublimate injected into the bladder and used to irrigate the wound was found to reduce the frequency of the attacks, and boric acid acted in a like manner. In some cases of internal urethrotomy, the production or not of urine fever could be largely influenced by the internal administration of quinine, which is eliminated to a considerable extent by the urinary apparatus. These observations, taken collectively, seemed to me clearly to indicate that the kind of contact between fresh urine and a recently made wound was in itself sufficient to determine the occurrence of urine fever as a consequence.

With regard, in the second place, to the nature of the material by which the fever is produced, some important investigations during the last few years have been made relative to the development of animal alkaloids, both in the dead and living; and from these researches I do not think there can be any doubt in coming to the conclusion that the secretions of living beings are capable of forming leucomaines, alkaloid bodies having poisonous properties, and that many phenomena connected both with health and disease may thus be accounted for. That the development of urine fever is really due to the absorption of some such poisonous compound as an alkaloid, derived either from urine, tissue, wound decomposition, or all combined, I conclude from the following deductions, which seem to be warrantable from what I have already stated—1. That the presence of urine in relation with a recent wound is necessary for the production of what I have spoken of as urine fever 2. That mere contact of urine with a wound is not sufficient for its production. 3. That the retention of fresh urine within the area of a recent wound is almost invariably followed by its development in a greater or lesser degree. 4. That where urine is placed under such circumstances as have been last mentioned, the liability to the development of urine fever is greatly diminished when it is sterilised by local or general means. 5. That the retention of fresh urine, blood, and the débris of damaged tissue in the confines

of a recent wound for a certain time, at a temperature of about 100° F., could hardly be possible without chemical changes taking place in the constituents referred to. 6. That there is a common origin for urine fever is rendered probable by the uniformity of the symptoms attending it, which, though differing in degree, are identical, whether following a surgical operation or an accidental wound.

But objection may be raised against the views I am advocating relative to the way in which urine or urethral fever is developed, by the fact that it sometimes arises under circumstances where it may be difficult to prove that any actual breach of surface in the urinary tract has been inflicted—as, for instance, after the passage of a catheter. It would not be difficult to illustrate every degree of this complication, from the most transient rigor to the severest form of septic intoxication. The epithelial lining of the urethra exerts a considerable protecting power, rendering the canal water-tight, or, more correctly speaking, urine-tight. In a patient with stricture, if a bougie be passed and this is followed with a rigor and some fever, what has actually taken place is that the epithelial lining has been scraped off at one or more points, and this has permitted urine leakage and absorption to take place at the parts injured. If, on the other hand, prolonged attempts at catheterism have proved futile, and the bladder is aspirated above the pubes, the urine being drawn off in this way without coming in contact, or remaining so, with any portion of the urethra which has been injured by instrumentation, I have never known rigors or fever follow, though the urethral laceration has been considerable and sanguinary. There can be no other explanation for the absence of characteristic rigors and fever under these circumstances than the fact that urine has not been allowed to come and remain in contact with a freshly made wound. Some have concluded that the bladder is capable of absorbing some of its contents, whilst others, on the contrary, not only have denied the possibility of such an inference being drawn, but have pointed out how serious might be the consequences if there was any liability to such a contingency. It seems that both of these conclusions may be true, and the explanation I would offer is that by injury to, or disease of, its epithelial coat the bladder may be rendered capable of absorbing what it contains, to the detriment of the individual, as we see in those cases now often referred to by the name of "catheter fever." Further, it is important to notice that when a urine fistula is transformed into a permanent urine channel, as after Cock's operation, we find the passage becomes lined, like the urethra, with epithelium, and thus it acquires the power of transmitting urine without leakage.

A stricture of the urethra is generally considered to be due to a more or less prolonged inflammation of the lining membrane of the canal, leading ultimately to the deposition in the peri-urethral tissues of organised lymph, which becomes converted into a dense connective tissue showing a remarkable tendency to contract, and interfering with the escape of urine from the bladder by preventing a proper expansion of the canal. Now all this, though very true on the whole, does not enter into details with which we should be acquainted for the prevention and treatment of the disorder.

Acute gonorrhœa, unless care be taken, is apt to become merged into the condition commonly known as chronic granular urethritis. By the latter term we are to understand that at one or more spots within the urethra the epithelium has become so damaged, as a consequence of the prolonged inflammation, that it ceases to render the canal urine-tight, and a slow process of escape of some of the constituents of the urine into the tissues comprising the urethra and surrounding it takes place. As a consequence of this, and to prevent urine soaking further into the tissues, inflammatory exudation is excited, and barriers of lymph, which ultimately become organised, are thrown out opposite the places where the leakages take place. Thus splints of plastic tissue are formed, strengthening the urethra at the damaged spots. This is at first a beneficial conservative action, but eventually certain inconveniences follow which constitute, as it were, an independent disease. The following considerations seem to indicate that the peri-urethral exudation results from the interstitial leakage of some of the constituents of the urine through the walls of the canal:—(1) The mucous membrane, though chiefly involved in the primary inflammation, is, as a rule, not contracted, and only secondarily implicated in the stricture-forming process, so that it is possible often to split a stricture without necessarily damaging the lining membrane of the canal; (2) the plastic exudation which makes up a stricture differs from other exudations provoked in other parts of the body by inflammation in the degree of its density and tendency to contract; (3) the resisting and contractile character of the cicatrix which is formed in connexion with ruptures and lacerations of the urethra unmistakably shows the effect produced in the healing process of a recent wound which is constantly submitted to the action of more or less pent-up urine. The irregular, rarely annular form in which stricture tissue is deposited and ultimately exercises contractile pressure on the urethral passage is strongly suggestive that, in the first instance, it served the purpose of strengthening the wall of the canal, and thus prevented further leaking at points where the epithelial coat had been more or less permanently damaged.

To the objection that urine leakage, as in extravasation, is invariably followed by acute forms of inflammation, I would reply that the process of urine transition through the damaged urethral mucous membrane is extremely gradual, and time is permitted for that adaptation which the human tissues are proved to be so capable of. But the exudation which a damaged epithelium may permit of does not necessarily imply that all the constituents of the urine are thus brought into contact with the tissues under circumstances where the most active and destructive forms of inflammatory mischief must inevitably be aroused. I saw some years ago a case of stricture with extravasation occurring in a person suffering from Bright's disease. There were no signs of inflammatory action and commencing gangrene, and the fluid which escaped from the incisions that were made had not that strong ammoniacal odour which is usually so perceptible in such cases. In the urine which trickled through the wounds, and in that drawn off by the catheter, there was an almost complete absence of urea, and this, to my mind, solved the mystery, for it rendered the fluid chemically harmless to the tissues with which it came in contact. In the same way, and by a process of leakage, I apprehend, may be explained some of those rare cases which have been described as scrotal or perineal urinary cysts. Those cases of multiple stricture caused by spots of induration in various parts of the canal, chiefly in relation with its floor, can only be explained on the supposition that the urethra has almost entirely lost its normal power of conducting urine in the course of a long gleet, and that these numerous centres of induration and contraction mark the spots where leakage of some of the constituents of the urine has been permitted to take place; and what applies to the plastic form of exudation applies equally to the suppurative.

The knowledge that certain relations between a wound and the urine may cause and keep up urine fever will prove of service to us in practice, as I will illustrate in the following way. Three hours after dilating a urethral stricture by Holt's method of rapid divulsion the patient had a severe rigor and a temperature of 105° F. On the following day this was repeated with almost complete suppression of urine, and I then performed a free median cystotomy and put a drainage tube into the bladder. There was nothing to indicate that suppuration had occurred, the time being too short for its development and the symptoms being clearly due to urine poisoning. After this there was neither rigor nor fever, and urine was again rapidly excreted. By thus suddenly altering the relations of the wound with the urine the whole complexion of the case was immediately changed for the better, and the patient made a good recovery.

A due recognition of the function of the epithelial lining of the urethra shows that there is a right and a wrong way in making use of dilatation in the treatment of strictures. I am sure that more good follows the daily introduction of a bougie which passes quite easily, than when a larger size is less frequently used with some force. When a stricture has become, or is, so contractile and dense as to render dilatation out of the question, if not impossible, then I believe the open method of treatment is the safest and affords the best permanent results. In collecting and noting many hundred cases this method has furnished the largest proportion of permanent cures. And in reference to this point, I must take exception to a statement which is frequently made to the purport, "once stricture, always stricture." I could furnish many examples following the open treatment where a contractile stricture necessitating the constant use of the bougie has been so influenced by what has been

done as to render any further use of this instrument unnecessary, and that after some years the urethra can be proved to be structurally and functionally normal. In the majority of these cases the perineum has been opened for stricture complicated with abscess and extravasation of urine. It must, however, be borne in mind that a perineal section is seldom resorted to until the urethra is largely impregnated, so to speak, with old cicatricial tissue of a contractile nature, which, notwithstanding the longitudinal splice of sound tissue introduced by the operation, must remain behind to contract and to mar to some extent the result obtained. The conditions which the operation must necessarily fulfil are complete division of the stricture and thorough urine drainage.

In wounds of the urethra, made either accidentally or in the course of surgical operations, which by the nature of circumstances have to be treated without due regard for urine drainage, means should be more systematically taken to prevent the development of urine fever, as well as the formation of a dense contractile cicatrix. In promoting these objects much may be done by local irrigation and by internal administration of drugs eliminated by the urine.

Lastly, we must remember that the prevention of stricture is within our scope. If, as I have urged, stricture is the result of urine leakage following inflammation in one instance, whilst in another it is brought about by the constant contact of the excretion with an internal wound, then the importance in the one case of irrigation and in the other of free urine drainage is at once evident. It is in connexion with ruptures of the urethra that we see exemplified the most disastrous effects of permitting a wound to heal subject to the irritation that constant contact with pent-up urine is capable of exercising, and I have not the least doubt that those do best which are treated by perineal section and drainage without reference to the question of extravasation, the wound healing with a scar that shows but little tendency to subsequent contraction. And what applies to the healing of wounds inflicted accidentally upon the urethra internally, applies equally to others similarly inflicted on the canal for surgical purposes. The testimony that I have gathered from the examination of many hundred cases is certainly not favourable either to the permanency or the character of the relief that internal urethrotomy usually affords. Amongst the worst cases of stricture that I have thus met with have been those treated by an internal section. If there is any force in the observations I have brought before the Society this evening, I do not think there should be any difficulty in explaining how this happens, and of recognising the importance of applying to the treatment of wounds of all kinds involving the urethra those principles which are the basis of Listerism—namely, drainage and cleanliness. There is no part of the human body which by disregard of these conditions is more likely to be attended with disastrous consequences, whether we have regard to the present or to the future. In conclusion, gentlemen, most speakers commence their discourse with a text; I prefer concluding with one: Urine can spoil tissue as well as blood.

ON THE ELECTRICAL BASIS OF VITAL MOTION.

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IN muscles, and in the nerves belonging to them, while alive and at rest, are unmistakable signs of electrical charge and current which are not met with after death. These signs, which are exactly similar in nerve and muscle, differ in a very marked manner in the opposite states of rest and action. When the state of rest changes into that of action the *charge* is *discharged*, and the *current* undergoes a change which is spoken of as "*negative variation*," and which ought to be spoken of as *simple diminution of current*. Using a galvanometer with a very *high* degree of resistance in the coil, it is easy to detect the current of nerve and muscle, and to follow the "negative variation" which happens when the state of rest is made to change into that of action, but not so when the galvanometer has a coil with a very *low* degree of resistance in it. Indeed, in this latter case there is—what there never is when the galvanometer with a high degree of resistance in the coil is used—*discharge like that of the torpedo* (Matteucci) and *contraction*, which contraction is also witnessed when the connexion between the ends and sides of the fibres is made by a short piece of wire, or any good conductor. And so it is that I am ready to believe that the whole case may be greatly simplified by looking upon the charge and discharge as the only phenomena which have any claim to be regarded as *primary*; the current and its "negative variation" being in reality no more than the accidental result of the discharge being passed through a galvanometer with a degree of resistance in the coil sufficient to bridle down the discharge into the quieter pace of the current, which in reality is only a slow and almost silent discharge.

Again and again, by using the new quadrant electrometer of Sir William Thomson or the electrometer of Professor Lipmann, the reality of the charge and discharge is made very apparent. Again and again, by using the highly resisting galvanometer of Professor Du Bois-Reymond or Sir William Thomson, I have been able to verify all that Professor Du Bois-Reymond has said about the current and the "negative variation" of the current. In a detached piece of nerve or muscle the current passes from the sides to either of the two ends of the fibres, and, as may be expected in such a case, the former surface is found to be charged positively, and the latter negatively. And this state of things admits of explanation, if only it be assumed that the sheaths of the fibres, which are more or less *dielectric*, because they are composed of tissue more or less akin to *ligamentum nuchæ*, which is highly dielectric, are charged in a double fashion, as Leyden jars are charged; that ordinarily the exterior of the sheaths is +, and the interior −; that in a detached piece of nerve or muscle the sides of the fibres are +, and the ends −, because the negatively electrified interiors of the sheaths make themselves felt at the opened-out ends; and that *the state of relaxation in muscle* may be produced by the repellant action of the charge upon the muscular molecules; that *the state of contraction in muscle* may be owing to the discharge, which happens then, having given over these molecules to the action of the attractive force which is inherent in their physical constitution.

I am not at a loss when I try to understand how the state of charge may be brought about. On the contrary, the charge, as it seems to me, may be looked upon as the natural result, not of any electrical action confined to the muscular system, but of an electrical action extending to the whole solar system, and not limited to it. At spring-tide and at neap-tide, when the action of the sun and moon are most differentiated, there are variations in terrestrial heat which show very plainly that the moon as well as the sun is directly concerned in producing these variations. There are variations in terrestrial magnetism at the same time which as clearly tell the same story. And there are cotemporaneous variations of the same sort in atmospheric potential, only as yet not so clearly made out as the variations in heat and magnetism. And the deficiency in the evidence here is supplemented by the presence of the belt of terrestrial magnetism, and by the requirements of the doctrine of the correlation of the physical forces: by the presence of the belt, because the very existence of magnetism is inconceivable apart from electricity; by the requirements of the doctrine, because these oblige me to regard heat and light, and electricity and magnetism, and the other forms of physical forces, as mere modes of one and the same force. Indeed, there is, as I have attempted to show elsewhere,[1] good reason to believe that the earth is continually acted upon by electricity which has its source in an electrical interaction which is always going on between the sun and moon on the one hand and the earth on the other, and that this electricity is manifested in the form of currents across the earth from the sun and moon, the case being really one in which it is easy to believe that the dielectric sheaths of the fibres in nerve and muscle may be charged, as Leydon jars are charged, by these currents, and that this charge will be instantly renewed after discharge. Nor can it be said that these currents are not powerful enough to do all this, for, as atmospheric potential is equal to several hundred volts at a short distance above the earth, and to still more than this as this distance increases, and as the directive power of terrestrial magnetism

[1] Behind the Tides. London: Macmillan and Co. 8vo. 1888.

is not altogether annihilated by the most powerful artificial magnetism, it is only fair to conclude that the solar and lunar currents are powerful enough to do all the work they have to do in charging the sheaths of the fibres in nerve and muscle, as Leyden jars are charged, and in instantly renewing this charge after discharge.

Nor have I to argue differently when I turn from the charge and discharge to the current and "negative variation" of this current, which enter so conspicuously into the electrical history of living muscle and motor nerve. Many most beautiful experiments by Professor Du Bois-Reymond show that the "negative variation" of the current is no more than a diminution of this current. The needle of the galvanometer, which had diverged to the check under the action of the current of the resting nerve or muscle, swings back and takes up a position at no great distance from zero, when the state of rest is made to change into that of action. The needle yields to the change which is spoken of as "negative variation," and which ought to be spoken of as simple diminution of current, brought about by the discharge of charge which happens then; and, in fact, there is nothing in the history of the current, as made out so clearly by Professor Du Bois-Reymond, which does not tally with the history of the charge to which I am directing attention.

Nor is any contradiction to this view to be found in cadaveric rigidity and in the absence of relaxation and contraction in nerve. In ordinary contraction, the fibres are given over temporarily to the attractive force which is inherent in the physical constitution of their molecules by the discharge which happens then; in rigor mortis the fibres are given over permanently by the final departure of this charge. Ordinary contraction is a step towards death; rigor mortis is the arrival at death. As I take it, so it is, and no more. And it may be wrong to speak of the apparent absence of relaxation and contraction in nerve as being real absence. It is very possible that the difference between muscle and nerve in this respect may be no greater than that which exists between hyaline amœbæ, which do shrink and expand, and granular amœbæ, which have nearly or altogether ceased (they were hyaline at first, and very mobile) to expand and shrink. And here, too, it may be well to remember how a living nerve shrinks when it is divided, for this fact may point, not only to this shrinking as being in some degree analogous to contraction, but also to a process in some degree analogous to relaxation as having existed before the shrinking.

In dealing with the workings of artificial electricity upon nerve and muscle, I might go on to show that these are resolvable into those of charge and discharge: the charge favouring the state of rest, unless it be that the positive and negative elements of the artificial charge are opposed to the positive and negative elements of the natural charge; the discharge causing the state of rest to change into that of action by dislodging the natural change. I might go on to show that in electrotonus, in the case of the "inverse and direct currents," and in other cases as well, it is not the current which is acting, but the charge associated with the current, which charge, owing to the animal tissues being very bad conductors, is very decidedly + on the side of the + pole, and as decidedly − on the side of the − pole. I might also go on to show that the discharges of statical electricity and the instantaneous currents of high tension attending upon the beginning and ending of the constant current, which currents are strictly analogous to discharges, bring about a change from a state of rest to that of action by discharging the charge which antagonises the state of action. I have not to do with a new story; I have only to do with a new version of the story to which I have been directing attention. Want of space preventing me, I cannot make good these statements here; indeed, under the circumstances, all I can do here is to refer to a work of mine which was published about five years ago,[2] and say that what is not given here will be found there.

A very different story from this would seem to be told by the wild workings of vital motion which are seen in different forms of convulsion. The common impression is that the convulsion is caused by "a rush of blood to the head," by a bloodshot state of some motorial nerve centre, by a state of "morbid irritability" in that centre which seems to imply exalted vitality, by a state of + and not by a state of −, but there is no real foundation for any such notion.

In epilepsy, as Delasneuve was the first to point out, the very first symptom is a death-like pallor of the countenance; and so it is in epileptiform convulsion of any sort.

In the case of death by bleeding, privation of blood and convulsion stand together in the light of cause and effect, and, so far as I can see, there is no escape from the conclusion that the blood must have told upon the muscles *before* the convulsion rather than *in* it, that the blood may have helped to keep off the convulsion rather than to bring it on. Nor can it be said that the state of the nervous system is opposed to that of the circulation, for as coma is the accompaniment of convulsion, it seems to follow that the nerve centres are then very ill-supplied with "nervous influences" as well as with electricity.

And as in the convulsion of bleeding, so in the convulsion of suffocation the facts do not admit of being read in a different way. The convulsion in this case has been referred to the stimulation of the black blood with which the arteries are then filled to the full; but, in reality, it is as easy to refer it to the absence of arterial blood. And there is this to be said in favour of this view, that it brings the convulsion of bleeding and the convulsion of suffocation into the same category.

And as in the last of these two cases of convulsion, so in epilepsy. In it convulsion, coma, and suffocation still go hand in hand. Nor does the full and hard pulse at the height of the paroxysm in epilepsy lead to a different conclusion. This is the pulse, not of *red* blood, but of *black* blood. The pulse is that of suffocation, and the state of the circulation in suffocation is—what? It is *not* one in which, as many believe, the veins go on filling at the expense of its arteries until the arteries are emptied and the veins ready to burst. It is one, on the contrary, in which the arteries go on filling at the expense of the veins, and in which the pulse becomes fuller and firmer as the colour of the blood, which is plainly visible through the coats of the vessels, changes from red to black in the arteries, partly because venous blood goes on circulating for some time, and partly because black blood does not find its way out of the arteries as readily as red blood. Evidence to this effect is supplied abundantly in the numerous experiments of John Reid[3] and Professor Draper,[4] and also in the simple experiment which is repeated whenever arteriotomy is performed when an epileptic fit is at its height; for in this case it is seen, not only that the blood is *black*, but also that it jets out far beyond the point to which red blood is ever projected. Indeed, the more the matter is looked into, the more it becomes evident that the unusually full and hard pulse at the height of the fit is nothing more than the pulse of black blood which naturally belongs to the state of suffocation.

Nor do the facts with which I have to do make me ready to believe that the connexion between convulsion and suffocation is to be explained by supposing that *carbonic acid* is the stimulus by which a sleeping vital property of irritability in nerve and muscle is made to waken up. It is certain that retained excreta, renal and biliary in particular, may lead to epileptiform convulsions; it is by no means improbable that carbonic acid may act in the same manner, but it does not follow that this manner is that to which I have just referred. On the contrary, it may be that this manner is not unlike that of strychnia, which, as Dr. George Harley points out,[5] is very unfriendly to the arterialisation of the blood. And there is this to be said in favour of this view, that want of arterialisation is in accordance with the premisses, which, to say the least, is more than can be said in favour of the notion that carbonic acid provokes convulsion by acting as a stimulus to a vital property of irritability in certain motorial nerve centres.

All that has been said goes to show that coma, which is the accompaniment of the convulsion about which I have been speaking, has nothing to do with a state of over-action in the circulation. The state of the circulation is marked by ghastly pallor at the very commencement of the fit, and by unequivocal signs of suffocation afterwards. There is a great want of arterial blood during the time of coma. It is as it is with convulsion. And it may well be that the coma is dependent, not upon contraction of the capillaries consequent upon stimulation of the nerve centres having to do with the capillaries, but simply upon want of arterial blood, the cause of the coma and the convulsion being, in very deed, one and the same.

[2] Vital Motion as a mode of Physical Motion. Second edition. London: Macmillan and Co. 8vo. 1882.

[3] Phys., Anat., and Path. Researches. 8vo. Edin., 1848.

[4] Lectures on the Physiology of the Circulation. Amer. Med. Monthly, April, 1860.

[5] THE LANCET, June and July, 1856.

And all that may be said goes to show that convulsion or spasm has nothing to do with inflammation or active determination of blood, or congestion or fever. Epilepsy is often suspended for a time by the patient having been severely burned during a fit. It seems as if there was something in the inflammation and fever set up by the burn which is uncongenial to the fit; nay, it must be so, for, as a rule, fits which happened frequently before the burn keep away until the process of healing is complete and the circulation has returned to its natural condition, which is always somewhat under the mark as to activity. Nor can spasm be looked upon as the characteristic symptom of acute spinal meningitis. It is, indeed, quite a mistake to look upon spasm as being thus characteristic, for when the history of this disorder is carefully looked into it is found (I am speaking now of the disorder when inflammation is actually developed) that the so-called spasm is little or no more than a voluntary or semi-voluntary fixing of the spinal column, of which the object is to prevent the very severe pain caused by moving the exquisitely tender spinal cord. Only let the patient keep quite still, and he is little likely to have much pain, or any symptom which may be looked upon as spasmodic. I can appeal to evidence in support of this statement, but not here. Indeed, here, for want of space, all I can do is to say that it is so, not only in the convulsion or spasm about which I have been speaking, but also in any analogous phenomenon, physiological or pathological, and that much is said in "Vital Motion as a mode of Physical Motion" to make good this statement. Indeed, instead of having to do with the vital property of irritability as the master-key to life as manifested in muscle and motor nerve, I have only to do with electricity. And I am, I think, not the loser in adopting this course. I am not the loser as regards the vital property of irritability, for this property is no more than an *occult* property akin to the *virtus dormitiva of opium*. Now, *the vital property of irritability* which is looked upon as the cause of life in nerve and muscle is of the same parentage as the *virtus dormitiva of opium*, about which Molière makes fun.[6] It is equally an *occult* quality. It is equally an empty dream of the schoolmen of the middle ages, which has no foundation in fact, and about which the wonder is that it should have outlived the *virtus dormitiva* so very long. Indeed, do what I may, I cannot account for this anomalous state of things in these days when the reign of facts is supreme. And I am not the loser so far as the electrical hypothesis is concerned, for, by falling back upon charge and discharge, and supposing *that the charge brings about relaxation by keeping the muscular molecules in a state of mutual repulsion*, and *that the discharge brings about contraction by allowing the attractive force which is adherent in the physical constitution of the molecules to come into play*, I pass at once from the unknown and unknowable to the known, from mysterious metaphysics to plain physics, from the realm of fancy into that of fact. Indeed, so far from being the loser by adopting this view, I am, as I take it, in every way the gainer.

HYPERTROPHY AND ITS COUNTERFEITS.

By J. BLAND SUTTON, F.R.C.S.,
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(*Concluded from page 13.*)

BEFORE dismissing overgrowth, we ought to consider a variety of the process which is difficult to define, but is better illustrated by an example. The roach represented in Fig. 5 presents a large tumour growing from its side. The scales covering the tumour are in many places more than three times larger than those on the healthy parts of the fish; in the sketch a normal and abnormal scale are drawn of natural sizes for comparison. Notwithstanding the great difference in the sizes of the scales, the amount of material in each is equal. As the tumour increased in size the matrix of the scales expanded and produced scales of extreme tenuity. The specimen is preserved in the museum of the Royal College of Surgeons. A somewhat similar condition may be studied occasionally in man, in connexion with the subungual exostosis. As the exostosis grows it expands the matrix of the nail, and the surface of the neoplasm becomes covered with a corneous cap. This expansion of the nail matrix is not constant. The same applies to the enormously distended skull in hydrocephalus. In these crania the cubic capacity may exceed the normal some two or three times, yet the total amount of osseous material in these skulls is often less than in a healthy skull of corresponding age. These specimens illustrate clearly enough that enlargements of this character should not be confounded with hypertrophy.

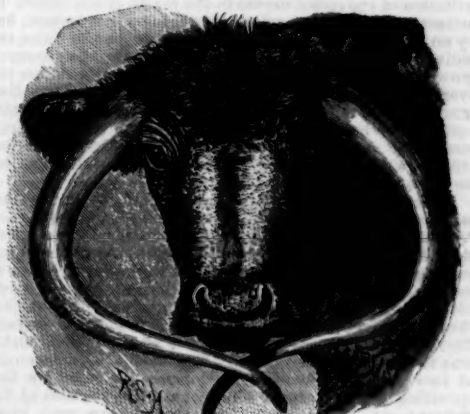
[6] Molière: La Malade Imaginaire, 3ième Intermède.

FIG. 5.

A roach with a spindle-celled sarcoma growing from its side. The lower figure represents the natural size of the scale, whilst the upper one shows the large size of the scales over the tumour.

The following case, communicated to me by Mr. R. E. Holding, is interesting as illustrating the disastrous effects of overgrowths. The horns of a Norfolk ox had grown unduly, and become so displaced that they crossed each other beneath the mouth in such a manner that the jaws

FIG. 6.



Abnormal position and overgrowth of the horns of a Norfolk ox.

could only be opened for a distance of two inches. The animal could only feed itself with difficulty. It was fattened for the butcher by having its food administered by an attendant. The position of the horns is well shown in the accompanying engraving. (Fig. 6.) The constant

rubbing of the jaws on the horn had produced two bald patches on the skin.

3 *Inflammatory enlargement.*—The distinctions between hypertrophy and increased size the result of inflammation, acute or chronic, are so obvious that it is difficult to understand how the two conditions can be misinterpreted; yet it is so. We hear of the hypertrophic form of cirrhosis, hypertrophous emphysema, hypertrophy of the prostate; even bones thickened from periostitis and ostitis deformans are described as examples of hypertrophy. Such loose method in the application of terms should be sedulously avoided; it is productive of error. The consideration of the specimens described in this paper ought to be sufficient to convince anyone that hypertrophy, overgrowth, and inflammatory enlargement are in no sense identical. Hypertrophy is a very salutary process, and in many instances is essential for the preservation of life. Overgrowth is at its best an inconvenience, and often disastrous; the same applies to inflammatory enlargement. In another place I have discussed the important part played by hypertrophy in evolution and have in consequence avoided it here.

In concluding this paper it may be of some interest to draw attention to a few points connected with overgrowth of hair. The skin of all mammals is furnished with hair or its modifications; the amount of hair may be very small in such forms as the whale, porpoise, elephant, and man. Few mammals have less hair than man, and in no member of man's class (mammalia) has hair a similar distribution. Even the quadrumana, which anatomically and zoologically approach man so closely, in the distribution and amount of hair differ from him very widely. In the apes, if deficiency occurs anywhere, it is on the ventral aspect; in man the reverse of this pertains, for the back is as a rule naked. It is scarcely correct, however, to make this statement emphatically, for the skin is in most parts of the body usually covered by a crop of thin downy hairs, which in such situations as the tip of the nose may be of excessive tenuity. In exceptional cases the hair on the general surface of the body may attain a considerable length and thickness; in rarer instances it may even be furnished with an aftershaft, an event very common with feathers. Hairy men such as Esau are not uncommon. It is well known that when the skin is persistently irritated, as by the application of poultices, the hairs in the neighbourhood may grow actively, and attain an abnormal length. All forms of local hairiness induced in this way must be regarded as overgrowth, the result of increased blood supply to the part in consequence of irritation. This is very well shown in the abnormal growth of hair occasionally seen on the forearm in some cases of arterio-venous aneurysm. Perhaps the most remarkable form of hairiness is that accompanying some cases of spina bifida occulta, and is probably due, as Virchow believes, to irritation of the spinal nerves in the region of the defect. In patients with a hidden spina bifida it is not uncommon, but by no means constant, to find a hair-field in the loins, the individual hairs of which may be very long; the abnormal growth may affect a very limited area. At other times the overgrowth is distributed over a very wide area, extending from the loins to the buttocks and down the thighs. In this variety the hairs are much shorter than in the first-mentioned condition. Persons with this form of spina bifida are not infrequently the subject of perforating ulcer on one or both feet.

In October, 1884, Virchow communicated to the *Berliner medicinischen Gesellschaft* a paper of very great interest on "Schwanzbildung beim Menschen," wherein he drew attention briefly to the statues and mythological narratives representing the satyrs and "gods of the woods," with tufts of hair for tails. Virchow suggests that the sculptors and artists did not trust entirely to their own imaginations, but that these oddities had a certain amount of foundation in fact. There is much to support this view of the matter, and I was induced to look into it. The sylvan deities consist of two varieties, *Fauns* and *Ægipans*. In fauns we find sprouting from the loins a hairy tuft. In the case of the ægipans, we have always the body of a man with long-pointed ears, attached to the hind quarters of a goat, and a long tuft of hair in the loin. The combination is well represented in Fig. 7, showing an ægipan supporting a faun on its foot. The hairy tuft needs no further explanation, and the notion of hairy legs may have originated from those cases in which remarkable hair fields occasionally exist on the limbs, as complications of the spina bifida occulta. The notion of the cloven hoof admits of a twofold explanation. In the first place, the distortion of the foot in the position of talipes equino-varus may have stimulated the imagination; or, in the second place, as Recklinghausen suggests, that, as the condition is so frequently complicated by perforating ulcer, and this disease leads to destruction of the metatarsal bones and loss of a few toes, a fancied

FIG. 7.

An ægipan supporting a faun.

resemblance to a cloven hoof originated. Nor is this merely supposition, for I have seen the second, third, and fourth toes thus destroyed, the big and little toes alone remaining, the first having a very suggestive cloven appearance. In conclusion, it is not unfair to infer that from such sources as these originated the familiar corporeal form of our much-dreaded mystical devil, with hairy body, cloven feet, and tail.

THE PATHOLOGY OF INFECTIOUS AND INFECTIVE DISEASES,

AS ILLUSTRATED BY THE FACTS OF INHERITANCE.

BY JOSEPH COATS, M.D.

(*Continued from p. 11.*)

I HAVE adduced the foregoing examples of inheritance of morbid conditions somewhat in detail, in order to supply a basis for my further observations. I apprehend that these instances in the first place afford demonstration of the fact of inheritance, while in the second place they indicate that the matter of inheritance consists in more or less minute structural or physiological details. It is a peculiarity in the formation of the epidermis, as in ichthyosis; or in the structure of the bloodvessels, as in hæmophilia; or in the structure of the retina, as in Daltonism; or in the innervation of the muscles of the eye, as in squinting; or in the condition of the blood and kidneys, perhaps dependent on the condition of certain nerve centres, as in diabetes inspidus. Just as in the case of inheritance of normal characteristics, so here in morbid peculiarities, the fertilised ovum begins its career with specific forces, certain of which result in divergences from the normal.

INHERITANCE OF INFECTIOUS AND INFECTIVE DISEASES.

And now in approaching, after this long introduction, the subject which forms more particularly our theme, we may expect to find that if inheritance plays any part in infective and infectious diseases, it must do so on principles consistent with those which I have adduced.

The first observation I have to make is that *race* plays a very important part in the etiology of this class of cases.

A very striking experimental demonstration of this was afforded by Koch in his very remarkable work on Traumatic Infective Diseases.[1] One of the most interesting of his series of observations is that in which, by inoculating mice with putrefying blood, he induced a specific acute infectious disease. There was a period of incubation of about twenty-four hours, after which the animals took ill and died in from forty to sixty hours. The blood of mice which have died in this way is in the highest degree infectious. The author says: "I have often performed the following experiment. The subcutaneous tissue of a mouse which had died after inoculation on the tail was touched with a knife on the opposite part of the body to that which had been inoculated—namely, on the head,—and with this instrument a small scratch was made on the ear of another mouse. The animals thus infected died, without exception, of the same disease."

Now, it is a fact of great importance for our purpose that while this disease was extremely virulent in the case of the ordinary mouse, it was quite innocuous in the case of the field mouse. Here is an animal closely allied to, and scarcely distinguishable at a first glance from, the ordinary mouse, but in regard to this infectious disease it presents the greatest possible contrast. Koch ascribes this difference to the differences in the blood of the two animals. In the case of the house mouse crystals seldom form from the blood, whereas in the case of the field mouse a drop of blood soon begins to undergo changes. The red corpuscles become transformed into large hexagonal plates, and thus the drop becomes transformed into a crystalline pulp. The important point for our purpose is that a difference in the condition of the blood has the effect of rendering an animal insusceptible of a disease which is extremely virulent in a nearly allied animal. As further illustrating this subject from the experimental side, I may cite the observations of Chauveau on splenic fever or anthrax.[2] It is well known that this disease is inoculable into a large number of animals of different species, and that these present great differences in their susceptibility to the disease. But even the same species was found by Chauveau to present in the different races a striking difference in susceptibility. In ordinary sheep a simple inoculation with the lancet of the fresh blood or other infective matter was sufficient to induce the disease, but when he came to experiment with sheep from Algiers he found that they did not usually become affected by this simple inoculation. In order to produce it a much larger quantity of the infective matter was required. Similarly, Pasteur, in his experiments with chicken cholera, found that while ordinary fowls were highly susceptible, those of the Cochin China breed were hardly at all so. In all these cases we have experimental proof that apparently slight differences in structure, such as those which make up racial variations, are sufficient to determine extreme differences in susceptibility to the class of diseases which forms the subject of this paper.

Turning to man, we have no less striking proofs of varying susceptibility among the different races, and even the different families of mankind. I may here refer to a fact which bears, at least by analogy, on the present subject. I suppose that in a certain sense the "plague of lice" is an infectious disease. Well, I find in Darwin's "Descent of Man" (second edition, 1874, pp. 169-70) that the different races of man present great varieties in the species of pediculi which afflict them. He says: "Mr. A. Murray has carefully examined the pediculi collected in different countries from the different races of man, and he finds that they differ not only in colour, but in the structure of their claws and limbs. In every case in which many specimens were obtained the differences were constant. The surgeon of a whaling ship in the Pacific assured me that when the pediculi with which some of the Sandwich Islanders on board swarmed strayed on to the bodies of the English sailors they died in the course of three or four days. These pediculi were darker coloured, and appeared different from those proper to the natives of Chiloe in South America, of which he gave me specimens. These, again, appeared larger and much softer than European lice. Mr. Murray procured four kinds from Africa—namely, from the negroes of the eastern and western coasts, from the Hottentots and Kaffirs; two kinds from the natives of Australia; two from North and two from South America."

Of the great group of zymotic diseases, when we come to look into the relative susceptibility of different races, we find that, in the case of some of them at least, there is very strong evidence of difference in susceptibility. In this inquiry I am much indebted to Hirsch's Handbook of Geographical and Historical Pathology, recently translated by the New Sydenham Society. This work contains a mine of information such as only a German could have presented. I observe that Hirsch in his sentiment is rather averse to admitting the influence of racial peculiarities in determining various degrees of susceptibility, and that he minimises this influence as much as possible. He is, however, compelled to admit the facts of the case against his own inclinations.

I think the most undoubted and typical instance is afforded by the case of *yellow fever*. This disease has a very definite and somewhat limited geographical area of distribution. It is a disease mainly of the West Indies and the neighbouring parts of North and South America. It is of some consequence for what follows to remember that, although somewhat widely distributed in America, it occurs in a much more limited area in the old world. In the words of Hirsch, "If we disregard the quite isolated outbreaks in the south-west of Europe, it is met with at one point only—viz., the west coast of Africa." Now, all authors are agreed that negroes present a singular immunity to yellow fever. In a work entitled "The Indigenous Races of the Earth," by various authors,[3] there is an article on the comparative influence of climate and of endemic and epidemic diseases on the races of men, by an American physician, Dr. J. C. Nott, in which a large amount of valuable information is given in regard to yellow fever. He says, for instance, "I have seen the disease prevail five times at Mobile, and have attended several hundred cases among the whites, but not a single well-marked one in a pure-blooded negro, and not more than two or three in mulattoes." Then, again, he says: "The smallest admixture of negro blood, as in the Quarteroon or Quinteroon, is a great though not absolute protection against yellow fever." There are numerous other authorities to the same effect, which may be found in Hirsch's book, vol. i., pp. 344 and 345. Fenner, for example, is quoted as saying: "The least mixture of the white race with the black seems to increase the liability of the latter to the dangers of yellow fever, and the danger is in proportion to the amount of white blood in the mixture." Hirsch here admits that we have to do with a congenital immunity in the negro race. There are two possible ways of explaining an immunity such as this. In the first place, it may be that in certain countries yellow fever is so prevalent that nearly everyone is attacked. We know that one attack of this fever confers immunity on the individual against a second attack, and it may be that this immunity may be transmitted to the offspring. There is, in the second place, the possibility of a true racial characteristic similar to the immunity of the field mouse to septicæmia and of the Algerine sheep to anthrax. In the case of yellow fever there can scarcely be a doubt that the second view is the true one. One can hardly suppose that a whole race could acquire immunity from its ancestors having been affected. It is true, indeed, that, without having been attacked by the disease, even Europeans residing in yellow fever districts acquire a certain power of resistance—become, as it is said, acclimatised. Freshly arrived individuals of any European stock are more liable than the old residents. But this does not approach to the immunity of the negroes; and even the Mexican Indians, who have lived for generations in the yellow fever zone, have apparently no greater degree of protection than European residents. Nott says "the American Indians of the table lands, as the Mexicans and the mixed bloods of Spaniards and Mexicans, are infinitely more liable to yellow fever than mulattoes of any grade." There is a further striking proof of this view in what may almost be regarded as an experiment on a large scale. It is to be remembered that the home of the negro race in Africa is only to a limited extent within the yellow fever zone, and yet negroes from all parts of Africa present a similar immunity to the disease. In the French expedition to Mexico the French troops were so decimated by yellow fever that it occurred to the French Government to get a battalion of black troops from the Viceroy of Egypt. This battalion, consisting of about 500 men, was recruited in the Soudan, coming chiefly from the parts between Berber and Khartoum. The result

[1] Translated by the New Sydenham Society, 1880.
[2] Comptes Rendus, 1880, vol. i., p. 15.
[3] London, 1857.

was watched with much anxiety, and it was found that, though these men came from a district far off from the yellow fever zone, yet not a single case of yellow fever occurred while they were in Mexico, where they were in the fever zone all the time.[3] We may, I think, legitimately infer that there is something in the racial characters of the negro which renders him peculiarly insusceptible to the virus of yellow fever. It is consistent with this view that in severe epidemics the negroes suffer, although to a much less extent than Europeans, as if the virus in an intensified form were able to break down the barriers opposed to it. A similar insusceptibility seems to be possessed to a less degree by other dark races—the Chinese and Hindoo coolies. A friend of my own in the West Indies tells me that it is so.

In regard to *malarial fevers*, the negro presents apparently much less liability than other races, although not nearly to such a degree as in the case of yellow fever. In the words of Hirsch, "the Ethiopian race, although it by no means enjoys an absolute immunity from the disease, is still affected by it, *cæteris paribus*, less frequently, less readily, and less severely than other races." In illustration of this I may quote the well-known statistics of Major Tulloch,[4] in which he compares the mortality of British and native troops on the west coast of Africa. The difference in the mortality is essentially due to different degrees of susceptibility to malarial fevers. Taking all the stations in western Africa, out of 1685 white troops who arrived in the years 1822 to 1825 there died between the years 1823 and 1827 no less than 1298, while 387 were invalided, of whom 17 died on the passage home. Thus of those who went out there died by the end of five years 1315 out of 1685. This extreme mortality was not confined to the private soldiers, but the officers succumbed almost in like proportion; every year about a fifth died, and another fifth were invalided. On the other hand, the black troops were almost exempt from fever. From 1819 till 1836 inclusive, the mean strength of black troops was 7581, and the annual mortality was only 228. This is surely a very striking contrast. Some part of this difference is doubtless due to acclimatisation. It is known that the natives of malarious districts are less susceptible than strangers, although no one ever acquires an absolute immunity. According to Hirsch, negroes have frequently malarial fever in childhood, and part of the immunity of adults may be due to this. But, taking all the effects of acclimatisation into account, the negro shows a degree of immunity which no other race can boast of. In Hirsch's book there is a table, the source of which is not very apparent, showing the proportion of deaths from malarial fever in Ceylon according to race. There died per 1000 of the population—negroes, 1·1; natives of India, 4·5; Malays, 6·7; natives of Ceylon, 7; Europeans (English), 24·6. It is clear from these facts that the negroes enjoy a remarkable degree of immunity from malarial fevers—greater, indeed, than the natives of the malarial districts themselves.

As a contrast to this we have the fact that the negroes are more susceptible to *small-pox* than Europeans. My friend in the West Indies tells me that when during an epidemic of yellow fever the negroes rejoice over their immunity, the Europeans reply, "Wait till small-pox comes, and then it will be your turn." There is abundant evidence of the great susceptibility of the negroes. Let me here quote a paragraph from Hirsch. "'The members of the human family,' says Pruner, 'that are most susceptible to the poison of small-pox are the negroes. Not only in their native lands, but in other parts of the world as well, they are the first to succumb to the epidemic influence, and also the last. It is no unusual thing to see negroes attacked by small-pox as soon as they arrive in Egypt (where they certainly change their way of living as well as the climate), and that, too, at times when the disease does not exist among the other inhabitants.' Similar statements as to the increased intensity of the disease in the negro are made for the west coast of Africa, for Martinique, for Curaçao, for Cayenne, and for Peru. In Boston there died in the epidemics of 1649-1762, or at a time when there was no question of protection by vaccination, 10·8 per cent. of white patients and 23·7 per cent. of black. In the epidemic of 1850 at Baltimore, the proportion of deaths among 10,000 white inhabitants was 8·1, and among negroes 14·5."

In regard also to *cholera* there is almost complete unanimity that negroes are much more susceptible than other races. Dr. Christie, of this city, who has had great experience of this matter, says, in a private memorandum referring to his experience on the east coast of Africa, "During an epidemic of cholera the more primitive races seem to be attacked most acutely, and a fatal result frequently ensues within a few hours after the first appearance of the symptoms. I have seen many instances among negroes in which death occurred without vomiting or diarrhœa, but I have never seen such cases among Europeans, Arabs, or natives of India. Natives of India seemed to me to have a greater tolerance of the disease than those of other countries." You will find in Hirsch a great body of evidence confirmatory of these views. In the United States army in 1866, for example, cholera was fatal in 77 per 1000 of the white troops and 135 of the black.

Having dwelt in some detail on the varying susceptibility of the different races to the infectious diseases, I may advert somewhat briefly to the influence of race on susceptibility to syphilis and tuberculosis. It appears that negroes possess an almost absolute immunity to *syphilis*. In Hirsch[5] there is abundant evidence of this. He gives the very striking example of Madagascar. In this island syphilis is unusually prevalent, but it affects almost exclusively the Hovas, who are a Malay race, while the Malagasys, who have the characters of the negro race, enjoy an almost absolute immunity. Livingstone also noted that "it seems incapable of permanence in any form in persons of pure African blood anywhere in the centre of the continent." The inhabitants of Iceland and Greenland seem to possess a similar immunity.

In regard to *tuberculosis*, there is quite sufficient evidence that the negro, especially when he comes into a colder climate, is particularly liable to pulmonary consumption. Hirsch gives references confirmatory of this from almost every country to which the negro has migrated. He states also, on the evidence of Baer, that "in the convict prisons of the United States from 1829 to 1845 the average mortality from phthisis among prisoners of the white race was 11·16 per 1000; but among the negroes confined in the Eastern Penitentiary of Pennsylvania it was 40·74, and in the Maryland Penitentiary 28·49." Hirsch also gives a table showing the comparative prevalence of phthisis among British and European troops in various localities, from which it appears that, while at Jamaica the mortality is only slightly greater among negroes, it presents a very great contrast at Gibraltar, being 6·1 per 1000 for British troops and 33·5 for negro.

Negroes show a similar liability to *leprosy*. "All observers agree that in countries with a mixed population, such as the West Indies, the Guianas, the Bahamas, Zanzibar, the Mauritius, India, Ceylon, and the Argentine States, the disease is commonest among the negroes and those of mixed blood, and rarest, if not absolutely rare, among the Europeans."[6]

(To be concluded.)

[3] See Pouchet: De la Pluralité des Races Humaines (Paris, 1864), p. 89. [4] Statistical Society, 1840.

[5] Vol. ii., p. 76. [6] Ibid., p. 55.

COMPOSITE ODONTOME OF THE UPPER JAW; REMOVAL.

BY JORDAN LLOYD, F.R.C.S.,
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TRUE ODONTOMATA, judging from the few cases recorded, are probably not of very frequent occurrence. I have Mr. Heath's authority for saying that up to the present time only nine have been published, and all were in connexion with the lower jaw. My case, therefore, appears to be absolutely unique, and deserves on that account to be fully reported. I am indebted to my friend, Mr. Adams Parker, for the patient.

T. M——, male, aged twenty-one years, agricultural labourer, was admitted into Queen's Hospital on October 4th, 1887. He is a robust, healthy countryman, and seems to know very little of the history of the condition for which he is under treatment. He says that a long time ago he had a blow on the right side of the upper jaw, but had forgotten all about it until the direct question was put to him. About six weeks since he had toothache in the right upper molars, and noticed shortly that his face and right eyelid were swollen. Two or three days afterwards an attempt was made to extract a tooth, with the result, so he says, that it was broken in the endeavour. About this time he first

discovered the structure for the removal of which he came under my care.

Occupying the front of the right cheek is a hard, painless swelling, evidently springing from the superior maxilla immediately below the malar bone. The hard palate in the posterior half of its right alveolar border bulges inwards. The floor of the orbit is not raised, nor is the right nasal cavity encroached upon. The right alveolar process is much increased in width in its posterior half, and on its border is to be seen a roundish rough hard structure $\frac{3}{8}$ in. in diameter, and looking like a piece of necrosed bone. There is a small amount of purulent fetid discharge escaping from around this roughened mass. The teeth in both jaws are well formed, but those in the upper maxilla are irregularly arranged, the two lateral incisors lying within the normal dental arch. All the permanent teeth are present in the lower jaw, except the right wisdom. In the upper the wisdom tooth of the left side cannot be seen, and on the right side the teeth are normal as far as the first molar, immediately behind which is the mass above referred to.

A diagnosis of "necrosis" was made, and the patient put under an anæsthetic for the removal of the supposed sequestrum. The mass was found to be excessively hard, and slightly movable laterally, but attempts to elevate it out of its bed were futile. With a chisel and mallet the encircling alveolus was cut through on its outer side, and the tumour was then lifted with a powerful elevator. The resulting cavity admitted the end of a finger, and was lined throughout with a soft velvety layer. There were no openings out of this space in any other direction. There was an escape of a few minims of putrid pus when the growth was disturbed. On the surface of the tumour were several tufts of adherent tissue resembling the lining of an alveolus. The wound was stuffed with glycerine lint, and a few days later the man was sent to his home in the country.

The tumour is irregular in shape, measuring $1\frac{1}{4}$ in. longitudinally, $1\frac{3}{16}$ in. in its greatest width, and $1\frac{1}{16}$ in. from its exposed surface to its deepest part. It weighs 279 grains. Its colour varies in parts, from the pearly-white tint of tooth enamel to brownish-yellow. Its surface is irregularly knobby, of the pattern of the shell of a walnut, with larger excrescences upon it, like the mulberry calculus. Some of these processes are formed of dentine, and others of bone-like material. The part which was exposed through the gum had a crater-like arrangement surrounded by a thickened ridge, slightly resembling the top of a large molar tooth. Looking towards the exposed part—that is, in a direction opposite to that in which a tooth root would look—is a small acuminate process, about $\frac{1}{16}$ in. in length, somewhat resembling a tooth fang. On section, the mass is hard, and cuts through with a floury dust. The divided halves, struck together, sound like pieces of flint. The cut surface presents a radiating arrangement of tissues, with its focus towards the anterior surface of the tumour. The bulk of the mass is made up of irregularly arranged layers of osteo-dentine, with cementum here and there in areas over the external surface. Opaline pearly patches are studded irregularly around the edge of the cut surface. One long broad patch, $1\frac{1}{16}$ in. in thickness, of pearly appearance, occupies the whole posterior part of the section, and is well seen in the illustration.

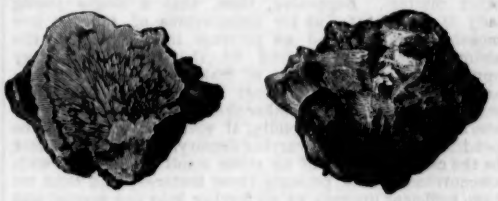
The subject of odontomes was ably discussed, in an exhaustive paper read last year before the Odontological Society of Great Britain, by Mr. J. Bland Sutton, and published in the November Transactions of the Society. Mr. Sutton, who has kindly furnished me with a reprint of his paper, takes a more inclusive view of the subject of odontomes than has been adopted by other investigators. He classes under this head, not only those hard growths composed of enamel, dentine, or cementum, but also certain cystic and fibrous tumours which are well recognised under other names. As, for example, fibroma of jaw and compound cystic sarcoma. He distinguishes at least eleven varieties of odontomes, and the above specimen appears to conform to what he calls "composite odontomes," which he considers develop through "aberrations of the whole tooth germ."

Mr. Heath, in a series of lectures delivered at the Royal College of Surgeons in June last on "Injuries and Diseases of the Jaw," thus spoke of this particular variety of tumour: "There are, I believe, but nine cases of this form of odontoma recorded, and these all occurred in the lower jaw." He has met with one case only in his extensive practice, and curiously this was in the person of the daughter of a dental surgeon, and was regarded as one of necrosis until the removal of the tumour by operation cleared up the diagnosis. A somewhat similar view was originally taken of my patient's condition. I had called the attention of my clinical class to the case, and had spoken of it as one of "necrosis," with much that was anomalous about it. I went so far as to tell the students that I believed it to be one of those rare examples of hyperostosis of the upper jaw, the oral surface of which had become necrosed through exposure. Why the exposure had occurred I declined to hazard an opinion. Twice have portions of the jaw been excised (a mutilation altogether unnecessary), and once—Mr. Heath's own case—such a procedure was contemplated. In mine, although I had not suggested such an extreme measure, I had cautioned the patient that my operation might not turn out all that could be desired, and that his tumour might continue to grow, and might subsequently call for further interference.

The view that these growths are due to "certain modifications which the molar teeth undergo during their development" is supported by a careful examination of this specimen. The mass occupied the space of the second, and probably the third, right upper molars; it could be felt to be slightly loose before attempts were made to remove it. After its extraction a deep, round, smooth, velvet-like cavity remained, and the exposed part, with its crater-like hollow and surrounding ridge, bore a certain resemblance to a molar tooth crown.

Suppuration has been present in several of the cases, and this, I think, may be due to an effort of nature to throw off the dental mass, which has become too large to be properly nourished. These inflammatory changes, Mr. Sutton considers, are analogous to the ordinary eruption of normal teeth.

The accompanying illustrations give fairly accurate appearances of the external and sectional surfaces of the



tumour, and are drawn of the natural size. One-half of the specimen is to be deposited in the museum of the College of Surgeons and the other in that of the Odontological Society.

ON THE

CONTRACTIONS OF THE UTERUS DURING THE WHOLE OF PREGNANCY;

AND THEIR VALUE IN DIAGNOSIS OF PREGNANCY, BOTH NORMAL AND ABNORMAL.[1]

BY J. BRAXTON HICKS, M.D.LOND., F.R.S., &c.,

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SIXTEEN years have elapsed since I first directed the attention of the profession to the fact that during the whole of pregnancy the uterus contracted and relaxed at intervals of variable length, generally from five to twenty minutes, each contraction lasting from about three to five minutes. Since that communication to the London Obstetrical Society in 1871 my attention has been constantly directed to this phenomenon, and I have endeavoured to illustrate the physiological effects of these contractions in the Proceedings of the Royal Society (England), No. 195,879, in a "Note on the Auxiliary Forces concerned in the Circulation of the Pregnant Uterus and its Contents in Woman." I have there shown tracings of the alteration these contractions

[1] Read before the Hunterian Society, at the opening of the session, Oct. 12th, 1887.

make on the respiratory wave of the abdomen over the uterus. Since my first paper I have added much to my previous knowledge, and have found the information thus obtained of very great practical value in the diagnosis of both normal and complicated pregnancy. Additional cases with remarks have been brought before the International Medical Congresses, and published in their Transactions. Since these publications other interesting cases have occurred in my practice, affording fresh evidence of the value our knowledge of these contractions gives us in unravelling conditions otherwise puzzling or insoluble. A selection of these, in illustration, will be given in this paper.

But first it may be helpful to make a brief sketch of our present position. In the first place, it is proper to point out that where the uterus is beneath the fourth month of pregnancy it is much to be preferred that we employ both external and internal palpation; after this time this is not so necessary. If it be undesirable, as when we merely suspect pregnancy in single girls or women, to employ external examination, the outline of the uterus will generally be sufficiently defined if we place one hand over the lower abdomen, one edge slightly resting on the pubes, and then causing the person to inspire freely and frequently. We shall easily perceive its presence by the resistance of the uterus; and by continuing our observation sufficiently long we shall detect any variation which may occur in its solidity. For although sometimes the variation may not be very marked even at the fourth month of pregnancy, yet the flaccid stage is often so complete that all sensation of resistance is lost except to very careful bimanual examination. It may here be noted that when our hand is first placed over the uterus, this organ may be in a state of contraction, and consequently firm; or it may be flaccid, so much so as not to be easily recognised. It is only by waiting patiently that we can determine the variation. The time occupied in this can be passed in inquiries concerning other matters. Supposing, then, that a single young lady is brought to us for amenorrhœa of four or five months' duration, and an increase in the size of the abdomen has been noticed by the friends, an easy opportunity is afforded us of making a superficial examination, and thus, without implying any suspicion, we can ascertain, first, whether there be any swelling in the uterine region; and, secondly, if there be, whether it be persistently firm or of varying density. Should the latter be the case, we know of no other condition coupled with amenorrhœa which presents these features; and thus we have sufficient grounds to go further into the matter, and to proceed, if necessary, to propose an internal examination. Even should no change of size have been observed, external palpation can generally be obtained. I think it will be fully recognised as a great advantage that we are thus able to obtain decisive proofs of pregnancy before suggesting the possibility of its existence, or before alluding to the subject at all.

Not only in the recognition of pregnancy, but also and particularly are we assisted by making use of our knowledge of these contractions when it is attended by complications. Where we have a mural fibroma, we are able, by watching the condition of the uterus during these alterations of density, to distinguish generally between the portion occupied by the pregnancy and that by the tumour. But where there are many tumours and the pregnancy early, this is not so easy—sometimes it is impossible. In a rapidly growing ovarian tumour the diagnosis between it and a gravid uterus is important, and in the majority there is considerable difficulty; but by the signs I have given there will generally be a tolerably easy solution of the question.

Where pregnancy occurs in a normal uterus along with the presence of an ovarian tumour, we are enabled in like manner to decide which swelling is the uterus and which is the ovarian growth. So also, where an extra-uterine pregnancy is suspected, we can decide against the supposition if we observe the swelling change in density, for of course no such change takes place in extra-uterine conception; but it is obvious that we must not be too hasty in assuming that because we cannot for a time feel this sign the pregnancy is extra-uterine, for the uterus sometimes is very quiescent, and therefore extended observation will be required before the negative can be taken as a positive.

In cases where a double uterus is present and one side is impregnated, there may be a suspicion of extra-uterine fœtation; but if the tumour, which would be on one side, alter its density, we shall be certain the ovum is within the uterine wall, though it may be probably difficult to say whether it be all one portion of a double uterus or the single uterus drawn over by adhesions to the side. It may, indeed, be quite possible to have both a normal pregnancy and an extra-uterine concurrently; and here again we are also in a position to decide and discriminate the one from the other.

In twin pregnancy it not infrequently occurs that one ovum has died, dwindles, and becomes somewhat solidified, producing a want of symmetry in the form of the uterus; and this particularly if the other ovum at the same time is affected with hydramnios, so that there is much difficulty in making out the actual condition. In such a case we are generally able to notice that when the uterus becomes firm the whole of the irregular swelling becomes a firm spheroid, and thus the several parts are proved to be within the same walls, which can only be the uterine; while palpation and the stethoscope will reveal the dual contents.

When the uterus is over-distended, as by hydrops amnii, we are to a large extent unable to detect the contractions, and the diagnosis between this state and ovarian dropsy must be made out by other means. In distension by the large and rapidly growing vesicular mole (hydatiniform degeneration of the chorion) I have noticed these contractions occur as in a natural pregnancy. However, in mole conceptions of the solid kind (apoplectic ovum, &c.), or where the fœtus has been blighted and the whole ovum become more substantial, the uterus often continues for a long time firmly contracted, and thus we have a state which may be imitated by a soft fibroma, though in this latter complaint the menses are generally excessive and frequent, but generally not postponed or absent for a month or two, as is the case most frequently in mole conceptions. In fibroma the menses are, as I have just said, in excess, either in time or quantity, or both, except in those cases where the loss is very great and the anæmia profound. But these fibromas are generally not of recent origin, there is commonly a long history. It has been stated, though I myself have never yet observed it, that there is an alteration of density in cases of soft uterine fibroma. If this be the case, it must be rare, and taking the histories into account we are not likely to be misled. It would be only in cases of mole conception or blighted ovum in the earlier months of pregnancy that the point would arise. In normal pregnancy the complete flaccidity of the walls during the relaxed state is quite different from the simple alteration of density, and it is then that the fœtal parts can be felt generally without difficulty.

(To be concluded.)

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

STRANGULATED FEMORAL HERNIA, WITH ENTIRE ABSENCE OF LOCAL PAIN.

BY OSCAR B. SHELSWELL.

ON Sunday, Nov. 20th, I was called to see Mrs. H——, aged forty-nine, suffering from very severe abdominal pain, especially on the left side and around and above the umbilicus; vomiting and constipation were also present. These symptoms had commenced on the previous day. I found on inquiry she had had the usual energetic doses of purgatives recommended by sympathising neighbours, but the constipation continued. She had a "lump" in the right groin, to which she paid little attention, however, as there was no pain in it. It was of irregular shape, and felt very hard, except at the lower part; no impulse on coughing. The diagnosis of hernia was aided by a history of its sudden disappearance some weeks previously. Slight taxis was tried, without causing the least pain. Next day, as the sickness increased in severity, and the vomit was very offensive, I decided to operate. She had had no pain in the hernia at all; and even immediately preceding the administration of ether not the slightest pain was caused by examining the hernia—all the pain, and that very severe, being felt as before on the left side of the abdomen and

around and above the umbilicus. The sac was opened, but only omentum seen. On passing my finger to the ring, however, a small knuckle of bowel was felt tightly nipped. I divided the constriction, returned the bowel, ligatured the omentum, and cut a portion off. The vomiting and pain entirely ceased after the operation. The temperature has been normal ever since, except on the first two days, when it was slightly raised. The bowels acted naturally on the ninth day, and with the exception of some suppuration, owing to the omental ligature, the patient has progressed well.

The interesting point in the above case is the entire absence of local pain. Mr. Birkett, referring to strangulated hernia, says "the tumour is painful when touched." And Mr. Bryant writes: "The hernial tumour will be tense and painful"; but he qualifies this by a later passage: "The local signs are often slight," and refers to a case where he "reduced a femoral hernia by taxis, strangulated for a hundred hours in a man who was unconscious of its presence till a few hours before." The perfect freedom from local pain in the case of Mrs. H——, even to the period immediately preceding the operation, is therefore, I think, sufficiently uncommon to render it of interest.

VERY RARE PRESENTATION IN MIDWIFERY.

By R. ADAMS BREWIS, M.D. EDIN.

MR. BORHAM of Fulham relates a case of very rare presentation in midwifery in THE LANCET of Oct. 15th, 1887, and more recently Mr. Buchanan of Glasgow has narrated a similar case. These cases remind me of the following one that came under my care in the Glasgow Maternity Hospital.

Mrs. F——, aged twenty-nine, of short stature (a multipara), was admitted on January 17th, 1885, at 6.5 A.M. Previous obstetrical history: She states that in her previous labours the after-birth was always difficult to get away. This was not the case in her last confinement, which took place in this hospital in October, 1883. Present labour: Delivered on Jan. 19th, 1885, at 4.45 A.M. Head, left hand, funis, and left foot presented. Position of head, left occipito-anterior. Duration of first stage, two hours; second, an hour and fifty-five minutes; third, twenty minutes. Child (male) dead; full period; weighed 8¼ lb.; length 22 in. The placenta weighed 1¼ lb.; length of umbilical cord, 27 in.; the placenta and membranes were entire. The patient says she last felt the movements of the child on the evening of January 16th; but they had been very feeble for four days previously. At 8 P.M. on January 18th no fœtal heart sound could be heard; the finger could be inserted into the os and a firm body felt; this was supposed to be the head, and abdominal palpation supported this supposition. The patient was removed from the labour room to a small adjoining ward, as other cases were going on. Labour pains began at 1 A.M. on Jan. 19th. At 3 A.M. the nurse came and said that the membranes had ruptured, that the os was well dilated, and that a hand and a loop of umbilical cord were in the vagina. On examination it was found to be the left hand, and the funis did not seem to be pressed upon, though it was pulseless. A hard rounded body was felt high up, but whether head or shoulder was not determined, though after examination by abdominal palpation it was considered to be the head. Dr. Samuel Sloan, the visiting physician, was sent for, and arrived at 4.15 A.M. On examination he found a large loop of umbilical cord in the vagina, the left hand and arm in advance of the head; head in left occipito-anterior position and in the cavity of the pelvis; a foot lying across the upper part of the forehead, the heel being on the right side of the forehead, the toes on the left. The head being in the cavity of the pelvis, and the uterus being evidently firmly contracted on the body of the child, it was deemed safer to apply forceps, when, if gentle traction did not suffice, the head was to be perforated. Sir James Y. Simpson's forceps were easily applied, and the child delivered in about five minutes with very moderate traction, the arm coming first. The foot that was lying across the forehead receded somewhat when traction was applied, so that when born it lay on the left side of the thorax. The attitude of the child was now well seen; the left hand and arm stretched in advance of the head; the left leg fully extended on the front of the child; the right upper arm lay by the side of the child, the forearm and hand being flat on the abdomen; the right lower limb was flexed in the usual manner, the right hand and forearm intervening between it and the abdomen. Rigor mortis was marked in all the limbs of the child. The third stage of labour presented no difficulty. The patient made an uninterrupted recovery, and was dismissed on the ninth day of puerperium.

CASE OF SEVERE POST-PARTUM HÆMORRHAGE SUCCESSFULLY TREATED BY INTRA-VENOUS INJECTION OF SALINE FLUID.

By BLAGDON RICHARDS.

ON December 19th, 1887, I attended Mrs. H——, aged thirty-four, in her eighth confinement. There was a history to the effect that on previous occasions difficulty had been experienced in the removal of the placenta. The child was born at 9.30 A.M., and as attempts to express the placenta, *secundem artem*, failed, I removed it with the hand; but upon examination calcareous degeneration of the placenta was observed, and it was evident that a portion remained still adherent to the uterus. The hæmorrhage was continuous, and the uterus would not respond sufficiently to manual stimulus to justify the hope that the patient might recover without some further assistance. The pulse was now almost imperceptible, the woman blanched, restless, but conscious. Brandy and ergot were administered at short intervals in small doses, and I telegraphed to Mr. Jennings to bring his transfusion apparatus. Upon his arrival Mr. Jennings concurred with me that the remains of the placenta should be extracted from the uterus, which was effected, stupor having been induced by the inhalation of a little chloroform to facilitate the procedure. The uterus being now quite empty, the organ was packed with small lumps of ice, and manual pressure upon its fundus entrusted to the nurse. It was now observed that the pulse was small and very quick, but its frequency was not noted. Great thirst was complained of, and we thought that the condition of the patient indicated the necessity for intra-venous injection of fluid. Sixteen ounces of saline fluid (temperature 98° F.) were accordingly injected, about noon, into the cephalic vein of the right arm. Signs of increased animation were coincident with the intra-venous injection, and the feeling of thirst considerably lessened. The frequency of the pulse was reduced to 100, and its character approached the normal. This patient has made an uninterrupted recovery.

CASE OF MAGGOTS IN THE EAR.

By WM. J. PILLEY, L.R.C.P. LOND., M.R.C.S.

M. R——, a domestic servant recently arrived in the colony, awoke on Oct. 31st feeling pain in the left ear. The pain steadily increased, although she applied poultices. Three days later she consulted me, complaining of intense pain in the left ear. On introducing a speculum moving white bodies could be seen. The ear was syringed, with the result that three maggots (larvæ of the common blow-fly) were removed. On again examining the canal with a speculum the sides were found to be slightly ingested, as also was the membrane. Iodoform was blown into the ear, after which all symptoms soon disappeared.

I am not aware whether this kind of case is rare or otherwise, but can quite imagine how easy it is for the eggs of the blow-fly to become deposited in the ear during sleep, especially in a country so infested with flies as is Queensland.

THE POISONING OF THE MANCHESTER REGIMENT.—We noticed some months ago a report that appeared in some of the up-country Indian papers of attempts to poison the Manchester Regiment at Agra. An inquiry has led to the discovery that they had been drinking beer which contained a large quantity of arsenic, and it is believed that they owed their lives simply to the accident of the poison not having been stirred up from the bottom of the cask. The beer drawn from the cask was comparatively pure, but the dregs contained enough arsenic to poison the regiment. An examination of several casks disclosed the fact that the wood was saturated with the poison, and it appeared that they had previously been used for holding arsenic.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

TRANSFIXION OF THE CHEST BY A SHRED OF GLASS; RECOVERY.

(Under the care of Mr. HULKE.)

THE opportunities for observing, and noting the progress of, penetrating wounds of the thorax are so rarely presented, even in the practice of our large hospitals, that the record of this case, treated with every advantage both for surgeon and patient, is of great importance. The wound was caused curiously by a long shred of glass, and resembled that produced by a rapier. One would have expected some fragments of this to have broken off and lodged in the chest, but there was no evidence of such a complication either at the time or afterwards. The antiseptic treatment adopted was most successful, and the patient entirely escaped those septic inflammations which have so frequently proved fatal in similar cases when recovery from the primary hæmorrhage has raised hopes of a final cure. We are indebted for the notes of the case to Mr. W. E. Jones, dresser.

On Feb. 4th of last year, at 4 P.M., a charwoman, aged sixty-two years, was admitted into Bird ward with a penetrating wound of the right side of the chest. On removing her clothes, which were saturated with blood, there was found at the level of the tenth rib, and at a distance of about three inches from the vertebral column, an oblique wound nearly three inches long, slightly curved, its convexity being directed upwards and towards the mesial line of the trunk. Through this wound a little frothy blood bubbled with the respiratory movements of the chest. During inspiration air was sucked into the pleural sac, and during expiration the upper valvular lip of the wound rose, permitting through the then patent opening into the chest a view of the upper surface of the diaphragm. The wounded side of the chest was hyper-resonant, and respiratory murmur was absent from it. Mr. H. P. Gould, who happened to be in the hospital when the woman was brought in, ascertained by an exploration with the finger that the tenth rib was cut through, its two parts being separated by an interval of nearly an inch and a quarter. A wound in the corresponding part of the lung was also thought to be felt. In the front of the chest, opposite the posterior wound, but on a higher level, in the seventh space, was another wound about three-quarters of an inch long. This, since the woman's stays were not cut, could only have been inflicted by a puncture from within outwards by whatever had caused the posterior wound. The patient was faint, and she complained of severe pain in the chest, but there appeared to be less shock than might have been expected from so severe an injury.

The history given by a maidservant present at the accident was that the patient had, a quarter of an hour previously to her admission into the hospital, fallen off a high "steps" on to the floor, whilst holding in her hands a large picture covered by a plate of glass. This latter was shattered into many pieces, upon some of which she fell. On lifting her up a large fragment was seen sticking in her back. The end of this her fellow-servant seized, and drew out a large and long piece, sharply pointed. Unfortunately in her extreme agitation she threw this aside, and its actual dimensions could not later be ascertained. The bleeding at first was profuse, but it soon moderated. (In the preceding October the patient had broken several ribs in the left side.)

The wound, after being dressed with a solution of carbolic acid, was dusted with iodoform and covered with a pad of boric lint fixed with a bandage passed round the chest. In the evening she vomited some undigested food, slightly streaked with blood. The dressings, being then soaked through with bloody serum, were changed. As she complained of great thirst, she was permitted to drink iced water *ad lib.* Being restless and in pain, opium was prescribed.

A detailed daily report of her progress is unnecessary. Slight pleurisy of the wounded side (and bronchitis of the left) supervened, the effusion disappeared, respiratory murmur reappeared, the wound granulated and closed, and on the 28th of the month—i.e., twenty-four days after the date of the accident—she was allowed to leave her bed. On March 14th she was dismissed well. The function of the right lung was perfectly re-established. Her recovery was retarded by the bronchial attack on the left side.

Remarks by Mr. HULKE.—In civil practice in this country penetrating wounds which completely transfix the chest are so rare, that for this reason, as also for the recovery of the patient from so dangerous an injury, the case appears to merit permanent record. In the absence of hæmoptysis it is a reasonable inference that the lung, if wounded, was only superficially injured. The appearance of blood in the vomit, when, a few hours after the accident, the undigested contents of the stomach (previously taken) were ejected, raised a suspicion that the diaphragm might have been traversed and the stomach injured; but the subsequent course of events was unfavourable to the supposition of an injury of this viscus. The immediate, copious effusion of blood probably proceeded from a divided intercostal artery, which must have been severed at no great distance from its origin. The treatment of the wound throughout was continued on the same lines as those of the first dressing. For a few days at first, in presence of the uncertainty of a slight gastric injury, very little, and only fluid, nourishment was given by the mouth, and the patient was fed with enemata.

LEEDS GENERAL INFIRMARY.

ABSCESS OF THE LIVER TREATED BY ANTISEPTIC INCISION; RECOVERY.

(Under the care of Dr. CHURTON and Mr. M'GILL.)

J. P. W——, a tanner, aged thirty, was admitted on May 31st, 1886, complaining of a dull aching pain in the hepatic region, great debility, and loss of flesh. There was a distinct swelling below the right costal margin, and the lower ribs were pushed forward. The swelling was markedly tender. The upper line of liver dulness was normal; rigidity of the abdominal muscles made precise definition of the lower margin very difficult. There were no symptoms or signs of gross disease in any other organ. As to the probable nature of the swelling, the following information was all that could be obtained. Patient said he was one of a healthy family, and, though never himself robust, he had had fair health until eighteen months ago, when one morning, on getting out of bed, he was suddenly seized with pain under the right breast. He continued to work for some days, but was afterwards thought to be suffering from pleurisy. Since that time the pain had been constant, but variable in degree. During the summer of 1885 he had pain in the right great toe and pain and swelling in both knees; but during the next winter (1885-6) he could work fairly well; he had then, however, a slight cough. Only a month before admission was the hepatic swelling discovered. He had frequently eaten watercress, lettuce, &c. He was married, had two healthy children; had never had venereal or any other disease of importance. (The foregoing account is an epitome of the notes taken by Dr. Griffith, then resident medical officer.)

There being nothing in this history from which the nature of the tumour could be asserted, an exploration was made by plunging a lightly held needle deeply into it, so as to avoid any possible scratching or abrasion of the surface of the liver during the movements of respiration, quickened and lengthened as they usually are during the operation. A small syringeful of simple pus (free from hooklets &c.) was withdrawn. This exploration was made below the costal margin.

It was hard to explain the occurrence of the abscess. The patient had not been abroad, and he did not remember any injury; but we cannot quite exclude the possibility that he had received one. Hardly anything is more astonishing than the forgetfulness of physical injuries on the part of some hospital patients. One burly labourer, under treatment for peri-hepatitis, not only did not mention that he had been crushed or "nipped" between an engine and a truck

in the region of the liver a year or so before, with the immediate result that he was laid up for many weeks, but, even when asked if he could in any way account for the present disease, said he could not possibly do so, and it was only when he was directly asked at a second or third examination if he had ever had an injury of any sort that he referred to the accident. A similar difficulty was found in eliciting from a young and sturdy farming man, with basal empyema, that he had been crushed by a horse against a wall several months previously, although he had never been free from pain since that event. Mr. M'Gill's opinion as to the feasibility of an operation having been sought, he proposed to make an exploratory incision, and then to proceed according to the conditions disclosed. This was done on June 5th, in the manner and with the result described below.

The patient being placed under the influence of ether, Mr. M'Gill made an incision, about four inches in length, half an inch below and parallel to the right costal margin, commencing two inches external to the linea alba. The abdominal muscles being divided, an opening about an inch long was made in the peritoneum, and the abdominal cavity opened. It was then seen that the upper surface of the liver was adherent to the diaphragm as far as the margin of the ribs, and distinct fluctuation could be felt by passing one finger on the under surface of the liver and another on the lowest part of the thoracic wall. The peritoneal wound was next closed with catgut sutures, and a trocar passed through the adhesion into the abscess cavity. The abscess cavity was opened by gradually dilating the opening made by the trocar, and ten ounces of pus were evacuated. The abscess was syringed with a weak (1 in 5000) solution of perchloride of mercury, the wound closed by catgut sutures, and dressed antiseptically. The spray was not used during the operation, but was used during the subsequent dressings.

The progress of the case was all that could be desired. The highest temperature was 100·4° on the evening of the second day; on the third day the temperature was normal, and continued so. The drainage tube was gradually shortened, and removed at the end of a month. The patient left the hospital well on July 19th.

Remarks by Mr. M'GILL.—The operation was performed first by making a long incision and opening the abdominal cavity; in this way the exact position of the adhesions was ascertained, and the abscess evacuated without fear of passing beyond their limits. By closing the opening in the peritoneum before opening the abscess all fear of escape of pus into the abdominal cavity was obviated. This method of operating is less dangerous and likely to be more successful than the more usual plan of cutting direct into the abscess cavity. Any danger that may be caused by the opening of the peritoneal cavity is counterbalanced by the precision and ease with which the exact position of adhesions is ascertained, and the correct position for the opening of the abscess demonstrated.

PEMBROKESHIRE AND HAVERFORDWEST INFIRMARY.

SUPRA-PUBIC LITHOTOMY.—FIBROID TUMOUR OF ANTRUM.

(Under the care of Dr. JAMES WILSON.)

CASE 1.—*Supra-pubic lithotomy complicated by stricture of the urethra; operation; recovery.*—Morris A——, aged forty-six years, a labourer, states that about twenty-seven years ago he suffered from intense pain in the back, which came on suddenly, lasted four days, and then ceased. For three months he was quite well, then his urine became thick, and he noticed blood in it. There was also pain in the region of the bladder and in the penis, which eventually rendered him incapable of any physical exertion. Stone in the bladder was suspected, and he was sounded on different occasions by several surgeons, but the stone was not detected.

The man applied for admission at this infirmary in October, 1887, and came under the conjoint care of Dr. E. P. Phillips and Dr. Wilson. On careful sounding they discovered a stone, which it was difficult to gauge accurately, owing to stricture of the urethra. The apparent size of the stone and the condition of the urethra were considered as indicating the supra-pubic operation as the best method for its removal.

On Oct. 27th Dr. Wilson performed the operation with the assistance of Dr. Bennett, Dr. Phillips giving the A.C.E. mixture, in the presence of Drs. Stamper and Griffiths, who also kindly assisted. The stone was removed in the ordinary manner, and was found to measure an inch and a half by an inch and a quarter, with a thickness of half an inch. There was little or no hæmorrhage. The wound was partially closed by silver sutures, and a drainage tube retained in the bladder twenty-four hours. There was no sickness, and the patient was allowed milk and chicken soup.

Oct. 28th.—The patient slept well on the previous night. Temperature 100·5°; pulse 106. The man's position was changed from side to side every six hours.

29th.—Temperature 99°; pulse 90. One ounce of urine was passed naturally, and fluid nourishment was taken freely.

30th.—Temperature 98°. The patient passed two ounces of urine.

From Oct. 31st to Nov. 6th all the urine escaped by the wound, and the patient's sides were uncomfortable from urinary excoriations.

Nov. 7th.—Patient passed three ounces of urine, followed by shivering, the temperature rising to 101°.

17th.—The escape from the wound has ceased. Granulations healthy, and the wound rapidly contracting.

20th.—Wound healed. Patient perfectly well, with the exception of slight œdema of the left lower extremity due to obstruction of the venous circulation; this quickly subsided.

CASE 2. *Fibroid tumour of the antrum; removal of the right superior maxilla; recovery.*—Ann M——, aged fifty-two, married, was admitted in March, 1887. She stated that she had a small tumour removed from the right side of the upper jaw about ten years ago, after which she felt no inconvenience for about eight years. She was then troubled with swelling of the cheek and prominence of the palate, from which there was frequent hæmorrhage.

On admission her cheek was prominent; there was thinning and expansion of the superior maxilla, with slight protrusion of the right eye; the orbital plate was not affected. The hard palate was absorbed on the right side, and the margins of the erosion were abrupt, clean cut, and free from induration. The protruding portion of the tumour had a non-malignant appearance, and there was no enlargement of the lymphatic glands.

March 23rd.—Dr. Bennett gave the A.C.E. mixture, and, with the assistance of Dr. Stamper, Dr. Wilson removed the upper jaw. The wound was secured by silver sutures, and the cavity filled with lint dusted with iodoform powder. On examining the tumour after removal, it was found to consist of dense fibrous tissue, with a few spindle cells.

24th.—The patient had slept naturally on the previous night. Temperature 99·8°; pulse 102. No pain; slight sickness. She took small quantities of milk.

26th.—Temperature 99·4°; pulse 90, feeble. The woman slept well. Took six ounces of brandy. Appetite good.

27th.—Wound healed; sutures removed.

The patient left the infirmary three weeks after the operation. There has been no recurrence. She now enjoys good health, and the disfigurement is slight.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Occlusion of Left Bronchus; Successful Treatment.—Salicylic Acid and its Influence on the Excretion of Uric Acid.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. W. B. CHEADLE and Mr. THOMAS SMITH introduced a case of Occlusion of the Left Bronchus by a Metal Pencil Cap, and its removal by Tracheotomy. The patient was a girl of nine years of age. The loose metallic cap covering the end of a pencil, which the child had put into her mouth, became detached, and was drawn into the throat. Urgent choking and dyspnœa followed. This was relieved after the passage of a probang down the œsophagus, and the foreign body was believed to have entered the stomach. There was great pain at the time and violent cough. Four days later dulness on

percussion and imperfect entry of air were first noted on the left side of the chest. Eleven days after the accident there was marked dulness over the whole of the left side; absence of respiratory murmur, except over a limited portion of the upper part in front; displacement of the stomach upwards to the nipple line; and great retraction of that half of the thorax, indicating almost complete collapse of the left lung. The respirations were 30; the pulse 92; the temperature was subnormal (97·8°). There was no dyspnœa, but occasional short cough aggravated by exertion. The conclusion arrived at was that the pencil cap, which was about one inch long and a quarter of an inch in diameter, had lodged in the extreme end of the left bronchus. After consultation it was decided to attempt the removal of the foreign body by tracheotomy before the supervention of serious inflammatory changes in the lung. Suitable provision was made for dealing with whichever end of the tube should present itself. For the open end a pair of suitably curved forceps with external grip were provided; these placed within a facsimile of the pencil cap were found to hold it firmly. The isthmus of the thyroid was divided between two ligatures, the trachea freely opened, and the edges of the tracheal wound attached to the margins of the skin by silk sutures. A long probe passed into the bronchus at once detected the foreign body in the position assigned to it, with the open end uppermost. The forceps were introduced, and the cap was extracted without difficulty. The plan of attaching the tracheal wound to the skin is recommended as serving to keep the trachea widely open—a help to the surgeon and a source of safety to the patient. With the exception of a sharp pyrexial attack of short duration on the day after operation, the patient made a rapid and uninterrupted recovery; the lung slowly re-expanded, and a final examination of the chest fourteen days after the operation disclosed as the only abnormal physical signs slight deficiency of respiratory sound and of expansion on the left side. The entrance of a foreign body into the left bronchus in preference to the right is shown to be by no means so rare an occurrence as commonly believed. Out of thirty-three cases collected in which the position of the foreign body is stated, it entered the left bronchus in eighteen instances, the right in thirteen. The physical signs observed in this case differ materially from those laid down by authority as typical in such conditions, and an explanation of this discrepancy is suggested. The collapse of the whole lung which followed the occlusion of its main bronchus is confirmatory of the accepted theory as to production of collapse of portions of the lung by obstruction of their supplying branches. The entire absence of pulmonary inflammation is opposed, however, to the view that collapse is the leading factor in the production of catarrhal pneumonia. Attention was drawn to the lowered range of temperature during the period of pulmonary collapse, to the inadequate compensatory rise in pulse and respiration-rate, and to the possible causes of the short phase of high pyrexia which occurred the day after operation.—THE PRESIDENT referred to the celebrated case in which Brunel inspired a half-sovereign. He also mentioned a case in which a piece of tobacco-pipe lodged in the right bronchus, where it caused ulceration; but it could not be removed for want of satisfactory instruments. He had always been under the impression that foreign bodies most frequently passed into the right bronchus.—Mr. MIVART expressed his obligation and thanks to Dr. Cheadle and Mr. Smith. He related three cases under his own care. A small bean was the cause of obstruction twice, and a berry once; in all destructive changes had taken place. It would tend to prevent scarring and cicatrix if the tracheotomy wound were not interfered with by having the trachea stitched to it.—Mr. HULKE referred to a case in which a tracheotomy tube obstructed the (?) right bronchus; such a tube was opened at both ends; by making a noose with a piece of silver wire, which had great flexibility, he was able to remove it. Gross of Philadelphia had used this also. In his case dulness on percussion was observed within a few days. Some bodies were insusceptible to putrefaction. Awns of some grasses and other vegetal bodies could set up septic changes. Immediate operation should be performed if there was great probability of a bronchus being obstructed by a foreign body. Sands of New York showed that in adults one could feel the bifurcation of the trachea from the tracheotomy wound.—Mr. BARWELL related a case reported in 1873 in the Transactions of the Society. Seven cases were recorded at that time in which the patients recovered, although the foreign body could not be removed by operation.—Mr. HULKE spoke of the case of lodgment of sixpence in the larynx. Although many attempts were made to remove it, it was only accidentally dislodged and swallowed by the man, who passed it a day later from the bowel.—Mr. HOWARD MARSH spoke of the divergence in opinion on the physical signs. In a case under his and Dr. Gee's care the left bronchus was obstructed, and there was dulness. The different forms of foreign bodies may explain some differences. A bean could become softened, and then be difficult, if not impossible, to find. The lesson taught by the operation was the necessity of thoughtful preparation for an early operation.—Dr. VINCENT HOWARD (New York) said that in pulmonary fibrosis there was also a high rate of breathing, but no fever. The fact that the left bronchus was more perpendicular in direction could explain why some foreign bodies fell therein. If the foreign body lodged in the left bronchus it would get further down than the first part or superior branch of the left bronchus, as in the case read. The danger of tracheotomy was excessive hæmorrhage, and he considered that Mr. Smith's method of stitching the trachea to the wound should form a precedent. This stitching together of the lips of the tracheal wound to those of the skin opening would tend to prevent the drainage of blood into the lungs.—Mr. T. SMITH spoke strongly of the value of the forceps for intubation of the larynx in the extraction of any hollow body, owing to their having an external grip. He considered that it was a real improvement to have the tracheal wound higher than any other part. Mostly foreign bodies were movable, and expelled without the employment of extracting agents, by nature alone when coughing was excited, and the patient lying face downwards. No attempt was made to get the child to cough up the body by turning her on the face. Dr. Broadbent, present at the operation, urged this also. Mention was made of a case in which a sugar plum got into the trachea and dissolved there, the child recovering. After tracheotomy a considerable scar always results, and having a keloid tendency, so that this attachment of the trachea to the skin wound could hardly make the scar more unsightly.

Mr. ALEXANDER HAIG read a paper on the Influence of Salicylic Acid and its Salts on the Excretion of Uric Acid. In a paper read before the Society in May, 1887, the writer has shown that a certain form of headache is accompanied by a very large excretion of uric acid. And in a subsequent paper in the *Journal of Physiology* he has attempted to show that within certain limits it is possible to increase or diminish the excretion of uric acid at pleasure, by means of acids and alkalies; that alkalies always increase and acids always diminish the excretion. And, further, he has shown in the same paper that the above form of headache may be cured, and the large uric acid excretion which accompanies it may be stopped by a dose of acid. Salicylic acid, however, forms an important exception to the above statement, for while it increases urinary acidity it does not in any way diminish the excretion of uric acid. Further, acids given while salicylates are present in the circulation have no longer the power of diminishing the excretion of uric acid. This action of salicylic acid and salicylates forms the subject of the present paper, and is of great importance in explaining the value of these drugs in gout, rheumatism, and other diseases connected with uric acid. Figures are given to illustrate the excretion of uric acid under salicylates, and are contrasted with others showing the normal relation to acidity. Excessive excretion of uric acid taking place under salicylates is not accompanied by any headache, and salicylates have previously been found useful in this headache. The action of acids and alkalies on uric acid excretion is probably due to the fact that alkalies increase and acids diminish its solubility, and the same with the exceptional action of salicylic acid; for salicyluric acid, which it is supposed to form, differs from uric acid in being very greatly more soluble in water, and probably also more soluble in dilute acids. Benzoates do not act in the same way as salicylates, probably because hippuric acid, which they form, is less soluble than salicyluric acid. Extracts were given from Watt's "Dictionary of Chemistry" on the solubilities of these bodies. Both uric and salicyluric acids are present in the urine passed under the influence of salicylates; this is possibly due to the salicylate acting on the uric acid in the blood, and not on the uric acid which is excreted direct from the kidney. (See paper in *Journal of Physiology*.) Headache is present with the rush of uric

acid which takes place under alkali, but not with the rush under salicylates; possibly, therefore, under salicylates, uric acid is present in the blood in a different chemical combination (salicyluric acid). Several chemical points with regard to salicyluric acid require further investigation, but it is difficult to obtain it in a state of chemical purity; but the facts now brought forward explain a great part of the value of salicylates in disease.—Dr. WARD said he could corroborate the increase in specific gravity of the urine at the time of headache. This headache was associated with gout, and, if successfully treated by acids, it seemed the alkaline treatment of gout might with advantage be altered. Excessive exercise and meat eating certainly increased the headaches. In France but little meat was eaten; yet headaches were very common. More mental work increased migraine, and this would show that it depended on more than mere excretion of uric acid; there was a nervous element; straining the eyes could induce an attack. Strychnine and aromatic spirits of ammonia were valuable drugs in megrim.—Dr. A. GARROD said that, if the teaching of the paper was right, the salicylates ought to have most marked action in gout, yet their influence was trifling. They gave relief to rheumatic gout, with which uric acid had nothing to do, nor with the pathology of rheumatic fever, in which the blood showed no excess of uric acid.—Dr. HAIG, in reply, said that he could induce headache by the ingestion of agents believed to increase the formation of uric acid. It was in the intervals of the headaches that diet and regimen were so successful. The nervous system was debilitated in women, but they even would be better for leaving off the meat. The French drink a large quantity of acid wines, causing retention of uric acid. Exercise increased the output of uric acid through the perspiration. He believed that uric acid is the irritant that caused the headache, which was predisposed to by the state of the nervous system. In chronic gout salicin was useful, but in acute gout the salicin would come too late. It was Latham's theory that uric acid was operative in acute rheumatism.

MEDICAL SOCIETY OF LONDON.

Cocaine as a Diagnostic Agent.—Carotid Hæmorrhage.—Gastro-enterostomy and Duodenostomy.

AN ordinary meeting of the above Society was held on Jan. 9th, Dr J. Hughlings Jackson, F.R.S., President, in the chair.

Mr. HURRY FENWICK read a paper on the Reflex Inhibitory Action of Cocaine as a Diagnostic Factor, embodying the results of urethral injections of that drug in an extensive series of neuralgias of various parts of the body. Slight neuralgic pains were thus relieved in from 30 to 180 seconds, and cases of the immediate action of cocaine in neuralgia of the cranial, cervical, intercostal, renal, and lumbo-sacral nerves were mentioned, the reasons for this inhibitory power being roughly demonstrated to the Society by means of decapitated frogs. Thus, without a vesico-rectal injection of cocaine, the leg of the decapitated frog was jerked out of the weak acid solution in ·02 second, but after cocaine had been injected into the bladder and rectum the leg was not withdrawn until after twenty or thirty seconds had expired. This remarkable inhibiting property of cocaine was observed only when *weak* acid solutions—i.e., slight nerve stimulations—were used, for cocaine could not delay the signs of reflex excitability if a stronger acid solution was applied to the leg. The following propositions were then formulated:—1. Weak nerve irritation of any part—neuralgias—could be reflexly subdued by an injection into the urethra of a few drops of a 20 per cent. solution of cocaine. 2. Severe irritation—as in the pain of carcinoma, inflammation, &c.—could not thus be subdued. He had used this largely for two years in the differential diagnosis of urinary diseases; for instance, if a renal pain was subdued immediately by a cocaine injection into the urethra, he diagnosed lithiasis, congestion, grit, or other slight provocative cause; if the pain remained unrelieved (and cases were given), he diagnosed more serious stimulation—e.g., calculus. He then referred to M. Tuffier's oncometric experiments upon the normal kidney, which showed that a sudden renal congestion was induced by vesico-urethal instrumentation, and he submitted that the inhibitory power of cocaine would partially prevent the damaging and sometimes fatal congestion which is produced in unhealthy kidneys by passing catheters, removing residual urine, crushing stone, and eradicating tumours from the urinary bladder.—Mr. J. BLACK had in two cases noticed serious toxic symptoms follow the use of strong solutions of cocaine.—Mr. BOWREMAN JESSETT had found it difficult, in removing nasal polypi, to effect complete anæsthesia by either injection or spray.—Mr. BERNARD PITTS, in removing a tumour from the back, applied cocaine locally; it was followed by faintness, general numbness, and coldness of the surface near the seat of operation.—Mr. ADAMS FROST referred to the observation of Mr. Jessop, that cocaine dilated the pupil by stimulating the sympathetic, and he thought the faintness might be due to the same cause.—Mr. FENWICK, in reply, said that Brown-Séquard had observed general analgesia after the hypodermic exhibition of cocaine, but after urethral injection he himself had seen toxic symptoms in only one case out of many hundreds.

Mr. FREDERIC TREVES read an interesting communication on the Treatment of Carotid Hæmorrhage. He had long been convinced that ligature of the carotid trunk for hæmorrhage from a small distant branch was a severe and often unnecessary method of treatment. In the limbs, bleeding from a small vessel could usually be easily controlled and arrested by temporary compression applied to the main trunk, either with the finger, by flexion, or other means; but in the neck, temporary pressure by these methods could not usually be applied with success. He therefore devised the plan of exposing the artery and passing a thread of catgut round it. If the loop thus formed were pulled up, pulsation in the artery stopped; if it were relaxed, the circulation went on again. He referred to four instances in which this manœuvre had been carried out successfully. One great recommendation of the method was that there were no grave risks from the operation itself, and there was no local inflammation in any of the four cases. (The paper will be published in full in a future number of THE LANCET.)—Mr. BERNARD PITTS, in cases of hæmorrhage from the internal carotid, advocated tying both the common trunk and the external carotid of the same side, but in cases of wounded common or external carotid he would expose the wounded spot and tie the vessel there. He asked if there were any chance of permanent occlusion by Mr. Treves's method, for Messrs. Ballance and Edmunds had shown that occlusion was possible without rupture of the inner coat, and in a case of his own the femoral artery was found to remain obstructed after the removal of a temporary ligature.—Mr. HARRISON CRIPPS said that bleeding from punctured wounds near the angle of the jaw or the tonsil came usually from the external carotid, and it was better therefore to ligature that vessel rather than the common trunk.—Mr. TREVES, in reply, said that his loop was in no sense a temporary ligature, and no obliteration of the vessel had followed in the cases he had related.

Mr. BOWREMAN JESSETT read notes of two cases. The first was a married woman, aged forty-three, who was admitted into the Cancer Hospital in an extremely emaciated condition, suffering with cancer of the pylorus, having constant epigastric pain, worse after taking food, and severe vomiting, the vomit containing blood. Palliative treatment was first tried, the stomach being washed out twice daily with plain water, followed by boroglyceride, essence of beef being given by mouth and nutritive enemata by rectum. The pain and vomiting continued, and therefore laparotomy was performed. The patient being too weak to bear pylorectomy, a piece of duodenum was stitched to the abdominal parietes. The gut was opened on the third day, and peptonised food introduced into it every six hours. The patient got gradually weaker, and died one month after the operation. The second case was one of gastro-enterostomy in a man of fifty, who complained of excessive gastric pain after food, coffee-ground vomiting, and obstinate constipation; a slight fulness could be felt between the umbilicus and the ensiform cartilage, but no defined tumour. For twenty-four hours before the operation the patient was fed with beef-tea and port-wine enemata; the stomach was then washed out, laparotomy performed, and a portion of the jejunum stitched to the anterior wall of the stomach. The patient did well for the first three days after the operation, when he commenced to vomit offensive material. This continued, he became rapidly weaker, and died of exhaustion seven days later, the cause being kinking of the bowel. The necropsy showed complete healing of the laparotomy and gastro-intestinal wounds, and no peritonitis; the cause of the illness was found to be a solitary ulcer, situated near

the pylorus and undergoing cicatrisation. Mr. Jessett said he would never recommend duodenostomy to be performed if the patient's strength allowed of the major operation, which of necessity placed the patient in a far better position, as there was then no interference with the process of digestion, the secretions of the liver and pancreas, as well as the saliva mixing with the food and preventing a process of slow starvation.

OBSTETRICAL SOCIETY OF LONDON.

Phlegmon of the Broad Ligament.—Scarlatina during Pregnancy and in the Puerperal State.

A MEETING of this Society was held on Jan. 4th, Dr. John Williams, President, in the chair.

Mr. SIDNEY HARVEY showed a specimen of Interstitial Gestation.

Dr. CARTER exhibited Ovaries and Tubes removed for double hydro-salpinx.

Dr. W. S. GRIFFITHS showed (1) a specimen in which there was a Tubo-ovarian Cyst of the Right and Hydro-salpinx of the Left Tube; (2) a case of Cystic Adenoma of the Anterior Lip of the Cervix; and (3) a Parametric Abscess.

Dr. LEWERS read a note on the Post-mortem Appearances of a Phlegmon of the Broad Ligament. The patient was admitted into the London Hospital a few days after her confinement suffering from mania and parametritis, and died from bronchitis. On post-mortem examination the layers of peritoneum forming the right broad ligament were found separated by exudation, measuring from before backwards an inch and a half, and bounded above by the Fallopian tube stretched over the convex surface of the swelling. The external surface of the peritoneum was somewhat granular, with here and there flakes of recent lymph about one-sixteenth of an inch thick. On cutting into the swelling, the cut surfaces had a coarse sponge-like appearance, the largest holes being the size of a No. 16 catheter, and all the cavities were filled with a sero-sanguinolent fluid, but none of these contained pus. The right ovary measured two inches and a quarter long, an inch and a half deep, and three-eighths of an inch thick. It was adherent to the adjacent surface of the broad ligament by recent lymph, and on section an abscess containing half a drachm of pus was found. The author said that the specimen illustrated a phase of parametritis rarely met with, and was interesting as bearing on the pathology of ovaritis. He thought it was difficult to conceive of ovaritis occurring as a primary affection, while it was easy to see how it may be secondary. Peri-ovaritis is produced by extension of inflammation along the Fallopian tube to the pelvic peritoneum, producing pelvic peritonitis involving the ovary. Interstitial ovaritis may be produced by extension of inflammation from the connective tissue between the peritoneal layers forming the broad ligament along the connective tissue on the hilum of the ovary, and so to the parenchyma of the ovary—i.e., interstitial ovaritis is secondary to parametritis. In the specimen, while the inflammation in the broad ligament was still in the stage of phlegmon, the inflammation in the substance of the ovary had gone a stage further and caused a small abscess.—Dr. MATTHEWS DUNCAN regarded the dissection as of great interest. Dr. J. Keith had mentioned a case of an allied kind observed during ovariotomy—so great was the swelling that he could pass a sponge into the pelvic excavation. In Dr. Lewers' case of parametric abscess, as well as in that of Dr. Griffiths, there was room for believing that septicæmia was present, and this might be the explanation of the situation of this disease between the folds of the broad ligament—a situation not common, even if it occurred at all, in simple traumatic parametritis. In puerperal septicæmia, or pyæmia, phlegmonous masses as distinguished from abscesses were not rare. They were generally situated on the limbs and often multiple. They might or might not be superficially red and more or less tender. He had lately seen a case with redness, and with two small, deep, punched-out ulcers the size of a split pea. He had seen also two such cases of phlegmon where eminent surgeons had diagnosed abscess and operated, finding no matter. Such cases, even when accompanied by bad symptoms, did not all end fatally.—Dr. GRAILY HEWITT thought Dr. Lewers' contribution was very valuable, as the opportunity rarely offered of substantiating the actual locality of effusions in this situation. He had frequently met with cases similar to Dr. Lewers'. He was of opinion that the presence of effusion indicated a localised septicæmia. The septic material entered by way of the lymphatics or by the bloodvessels, and the effusion in the broad ligament was the result.—Dr. CARTER had been present at a necropsy of a patient who died of septic parametritis. The broad ligament of one side was enlarged, and appeared as though some plastic matters had been injected between and separated the parts. The veins were distended, and the lymphatics were embedded in plastic material and kept fixed and patent.—Dr. LEWERS replied.

Dr. BOXALL read a series of papers on Scarlatina during Pregnancy and in the Puerperal State, of which the following are abstracts. The author briefly referred to some of the anomalies which exist in ordinary scarlatina, and suggested that further deviations from the usual type may be expected under the special conditions which appertain to pregnancy and to the puerperal state. He mentioned some of the more recent literature on the subject as containing the varied and frequently diametrically opposed opinions expressed by different observers, and, in passing, drew attention to the confusion which has arisen through the loose application of the terms "puerperal fever" and "puerperal scarlatina." He then described a series of sixteen cases of undoubted scarlatina occurring during pregnancy and in the puerperal state, with special reference to the facts of exposure as far as they could be ascertained in each case. He referred to the rare occurrence of scarlatina during pregnancy, and its almost invariable appearance during the first few days of the puerperium. Bearing in mind the alteration in the existing conditions which take place at delivery, he insisted that the two classes of cases must be kept separate, and that a distinction must be drawn—(*a*) between those cases which receive infection prior to delivery, and those which receive infection during or after labour; (*b*) between those cases which fail before delivery, and those in which the disease does not make its appearance till after the onset of labour. He further pointed out that the duration of pregnancy has an important bearing on the question of incubation. The following inferences were drawn:—1. As regards the time, with reference to labour, at which the disease shows itself—(*a*) that scarlatina almost invariably occurs within the first week of the puerperium, and its occurrence at a later period is extremely rare; and (*b*) that in exceptional instances scarlatina may show itself during pregnancy, shortly before the onset of labour. 2. As regards the liability of pregnant and parturient women to scarlatinal infection, and the reciprocal influence existing between the latter and parturition—(*a*) that a woman exposed to the disease may become infected with scarlatina during pregnancy during or after labour; (*b*) that the liability to infection is especially marked shortly before, and during the first few days after, delivery, but does not extend far into the puerperium; (*c*) that, if infection occur during pregnancy, the onset of labour may be thereby precipitated; (*d*) that, when infection takes place during or shortly after labour, the incubation period may be shortened; and, finally, (*e*) that the foregoing considerations are in themselves sufficient to explain the frequent onset of scarlatina during the first week of the puerperium, without the necessity of ascribing to scarlatina in pregnancy an incubation period exceeding that of ordinary scarlatina. The author pointed out that an apparent analogy with regard to the onset of scarlatina exists between labour and the menstrual periods. It appears that women usually fall with scarlatina shortly after, during, or just before a menstrual period, as in the case of labour. In conclusion, the author suggested that the following considerations (exactly analogous to those which refer to the intimate connexion existing between the time of the onset of scarlatina and delivery) may serve to explain these facts:—1. That the liability to infection is especially marked shortly before, during, and immediately after a menstrual period. 2. That infection occurring shortly before a menstrual period may precipitate the flow. 3. That, when infection takes place during or shortly after a menstrual period, the incubation period may be shortened. After briefly referring to the difficulties attending the diagnosis in many cases of scarlatina occurring during the lying-in period, the author, before entering into a consideration of the clinical features of the disease, reiterated the necessity of dissociating those

cases in which the attack begins before delivery from those in which it commences after the onset of labour. The initial symptoms were discussed, and attention was directed to the special character of the throat affection, and the following observations were presented:—1. That during pregnancy the throat symptoms are unmodified, but that after delivery angina is rare. 2. That in scarlatina after delivery—(*a*) subjective soreness is usually absent at the outset, and even at a later stage rarely causes much distress; (*b*) signs of slight inflammation, though generally absent at the outset, may usually be observed on the second or third day of the attack; (*c*) the cervical glands are usually affected, whether any change has been apparent in the throat or not. The fallacy of adducing from the diminished intensity of the throat affection an argument in favour of direct inoculation of the poison through the parturient passages was pointed out. Attention was also directed to the slight intensity of the tongue affection, and to the marked flushing of the face which precedes the rash. These also appear to be features of scarlatina developed post partum but not of ante-partum scarlatina. From these observations it was concluded that some modifying influence, the nature of which is unknown, is called into play at the time of delivery. The peculiarities of the eruption were discussed with especial reference to site and intensity. Its modifications are attributed to the altered circumstances of the patient after delivery. The frequent occurrence of sudamina and urticaria was also noted. A *résumé* was given of the various complications which the scarlatinal patients presented. Mention was also made of the influence of a previous attack of scarlatina, and of the lapse of time after delivery in diminishing the severity of the disease. An epitome of the course of the labour was given, both of those patients who were delivered during the incubation period and also of those who were delivered during the actual attack of scarlatina. The following conclusions were adduced: 1. When labour occurs during the incubation period of scarlatina, it runs for the most part its usual course, but the pains may exert a greater influence than usual on the mental condition of the patient; inertia, if induced, sets in late in the course of labour, and a peculiar and almost characteristic odour may be present. 2. When labour occurs during an attack of scarlatina, the pains are apt to be feeble throughout, inertia sets in early, and post-partum hæmorrhage is liable to occur; the same peculiar odour may be present. The nature of the slight and evanescent tenderness over the uterus, frequently noted quite at the outset of the attack was briefly discussed. Particular attention was directed to the character of the lochia, and a suggestion was put forward that offensiveness might have occupied a more prominent position if local antiseptic measures had been omitted during the puerperium. In the majority of cases an increased flow was observed at the onset of scarlatina. The cause of this was discussed, and a similar increase of the menstrual flow on the supervention of scarlatina was noted. A brief review of the mammary function was given. The liability of the infant (when the mother is affected) to take infection was discussed with special reference both to the question of suckling (which necessarily implies direct contact with the mother) and also to the stage of the disease at which delivery of the mother takes place. The following conclusions were offered: 1. That involution of the uterus is not much, if at all, retarded. 2. That the slight and evanescent tenderness over the fundus, occasionally present at the very outset of the attack, is often due to increased sensibility of the pelvic organs, and is rarely an indication of pelvic inflammation. 3. That, provided antiseptic precautions be taken, lacerations heal without difficulty, and the lochia as a rule do not become offensive. 4. That in some cases a peculiar unpleasant odour may be observed. 5. That the lochia usually proceed naturally and cease about the usual time, but in many cases become red and free at the outset of the attack. 6. That the mammary secretion is frequently diminished and sometimes arrested, as the result of the illness. 7. That infants kept at the breast are especially prone to scarlatina, probably from the mere fact of contact with the affected parent. 8. That when scarlatina shows itself in the mother during pregnancy the fœtus may or may not be affected *in utero*. 9. That when the mother receives infection shortly before delivery the infant more generally escapes, though it may be subsequently infected.—As there was not time to finish the reading of the last two sections of this paper the discussion was deferred until another meeting of the Society.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Discussion of Dr. Klein's paper on "Some of the Infectious Diseases Common to Man and the Lower Animals."

A MEETING of this Society was held on Jan. 11th, Dr. R. Thorne Thorne, President, in the chair.

The following is a brief abstract of the discussion on Dr. Klein's paper; a full account of it will be given in our next week's issue.

Professor BROWN divided the diseases common to man and the lower animals into two classes or series—(1) those in which there was a general resemblance or identity of the symptoms in man and animals, and (2) those in which the symptoms and appearances in animals did not resemble those in man. The risk of human beings catching from animals diseases of the first class was very slight, very few proportionately becoming affected. The difficulty of diagnosing with certainty those diseases communicable to man was often very great, and was particularly so in the affections which fell under his second series, such as diphtheria or scarlet fever. With regard to the question of a cow disease which could cause scarlatina in man, he had promised the officials of the Local Government Board that if he found an outbreak of cow disease that was coincident with scarlet fever in any district he would inform them; but he had not yet succeeded in discovering such an outbreak. He had seen four eruptive diseases in cows—blister-pock, black-pock, yellow-pock, and an eruptive disease of the teat at the present time very prevalent from Lanarkshire to Somerset, and which he was sure had nothing to do with scarlet fever. He asked the meeting to endeavour to decide the question, by careful inquiry and observation, whether there was or was not a disease of cows' udders capable of communicating scarlet fever to man.

Professor CROOKSHANK restricted himself to the bacteriological aspect of the question. The character of the organism found in man when infected with actinomycosis was very different from that found in cattle. He could not accept Dr. Klein's views as to the minute differences between many of the streptococci he had described. He himself had definitely come to the conclusion that the organism he obtained from the Wiltshire disease was the Streptococcus pyogenes aureus. He held that in the specific febrile diseases bacteriology had up to the present given only negative assistance.

Professor AXE said that, of the herd of cattle at Derby—about thirty in number, from which three were imported to Hendon suffering with disease of the teats,—the remainder had been traced to four other centres, and had given rise to a similar disease there; but of these five centres, scarlet fever was only prevalent at Hendon. During October, 1885, three cases of scarlet fever occurred in Hendon, and in November two other cases occurred close to the dairy farm. During this time four men who resided near these cases worked on the farm, and passed daily to and fro between the farm and the scarlatinal neighbourhood. He quoted recent experiments in which the attempt to develop scarlatina in animals by inoculation had failed.

Professor BUCHANAN said that the inoculated calf recently exhibited by Professor Crookshank at the Pathological Society appeared to him to be suffering from dermatitis contagiosa.

Surgeon-Major PRINGLE had never seen a spontaneous outbreak of true cow-pox. He had many times inoculated cows with human variola, but had failed to produce a true vaccine vesicle, whereas an after retro-vaccination of the same animals was always successful.

Dr. KLEIN, in reply, was glad to hear Professor Brown admit that more than one disease in the cow manifested itself by ulceration and sore teats. The disease in the Edinburgh cow was different from both the Hendon and the Wiltshire affections. He thought the Wiltshire outbreak was not like cow-pox, as described by Ceely. He maintained that the streptococci of vaccinia, of foot-and-mouth disease, of erysipelas, and of puerperal septicæmia, were all different. In the Wiltshire cows the ulcer spread to the apex of the teat, and this, he thought, accounted for the mammary abscesses he had found. Inoculation of the Hendon virus into calves produced ulceration which showed itself on the fourth day, whereas in similar inoculations of the Wiltshire virus the local manifestation was at its height on the fifth day while the Edinburgh virus pro-

duced no result till the ninth or tenth day. Post-mortem examination of one of the Edinburgh cows revealed extensive pulmonary hepatisation, with subpleural petechial extravasations.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Uterine Hæmorrhage of Five Years' Standing, caused by an Enlarged and Cystic Ovary; Removal of Ovary; Recovery. —Pudendal Hæmatocele.

A MEETING of the Obstetrical Section of the Academy was held on November 25th.

The PRESIDENT, on taking the chair, returned thanks to the Council of the Section for having nominated him as president for the ensuing year, and to the Fellows of the Academy for having elected him.

Dr. M'MORDIE exhibited a case of an Enlarged and Cystic Ovary. L. S——, aged twenty-six, single, was admitted to the Samaritan Hospital for Women, Belfast, on July 27th, 1887. The history of her case is very shortly and concisely given in a letter from Dr. Leeper, of Loughgall, written at the time of her admission: "A young woman, living on the shores of Lough Neagh, has been suffering for many years from uterine hæmorrhage, and has been in the county infirmary for three months, as well as under the doctor of the district in Portadown." When Dr. M'Mordie first saw her she complained of pain in the right ovarian and hypogastrium regions, and also in the lower back. Her general symptoms were those usually caused by a prolonged and excessive loss of blood. A careful examination of the uterus revealed nothing to account for the constant oozing of blood from the os uteri. There was no tenderness on pressure, neither was there enlargement, displacement, or endometritis. The right ovary felt enlarged, and there was tenderness upon pressure. He had no doubt everything had been done, so far as local and general treatment was concerned, that could by any possibility effect a cure of the hæmorrhage. He therefore advised removal of one or both ovaries as the only means of effecting a cure. In this opinion Dr. Leeper concurred. The nature of the operation having been fully explained to the girl and her mother, they gave their consent. On Aug. 2nd he removed the right ovary. He did not remove the left ovary, as it appeared to be healthy. The girl made an excellent recovery. The hæmorrhage ceased in about ten days after the operation, and she is now in the enjoyment of perfect health. To make certain that the recovery was permanent, Dr. M'Mordie kept her in hospital till the middle of October, when she returned home. A few days ago he wrote to Dr. Leeper and asked him to report upon the case. He replied as follows:— "Dear Dr. M'Mordie,—In reply to your letter regarding the girl Lizzie S——, I have pleasure in stating that you have accomplished a most complete cure in her case. I have examined her carefully since her return home, and I am satisfied nothing can be more complete or successful. She has no longer the hæmorrhagic attacks which had so drained her as to reduce her to the lowest state before the operation..... She would never have been cured but for the removal of the ovary."

Dr. HORNE read a paper by Dr. Purefoy (who was unavoidably absent) on Pudendal Hæmatocele, which was cured by the application of cold.—The PRESIDENT observed that when such hæmatoceles occurred previous to delivery they might completely obstruct the progress of labour. He remembered a case of this sort in which the tumour was as large as the fœtal head and completely occluded the orifice of the vagina.—Dr. MASON said he remembered two cases of this kind. In one of them a large tumour extended up the vagina and so completely occluded the urethra that water was with difficulty passed by means of a catheter, and there was no passage of anything through the rectum for ten days.—Dr. MACAN said that in a case of this affection he dicovered a large cavity between the rectum and the vagina; and the conclusion at which he arrived was that a hæmatocele had caused a dissection of the space mentioned and then burst and left the cavity behind.—Dr. LANE mentioned another case, which ruptured. The treatment adopted consisted of perfect cleanliness and dusting the cavity with iodoform powder. The woman recovered.—Dr. ATTHILL said that these cases were very alarming to look at, but according to his experience the majority of them did very well.

The Section then adjourned.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Dec. 8th, Dr. de Bartolomé, President, in the chair.

Spreading Cancer of Breast.—Mr. COOMBE showed a specimen of Extra-uterine Fibroid from a woman aged forty-three, who was admitted into the infirmary under the care of Mr. Jackson on the 11th of October last, suffering from diffused spreading cancer of both breast, together with the chest wall and part of the back. The total duration of the case was about eleven weeks, and death took place from exhaustion and embarrassed breathing due to the hardened and hypertrophied condition of the chest walls. The axillary glands on the right side were much involved, and considerable swelling of the right arm took place. The post-mortem showed no implication of any of the internal organs, but a large pedunculated tumour was found attached to the fundus of the uterus, which, however, had caused no symptoms during life. Attention was drawn to the rarity of the spreading form of cancer, and to the remarkable absence of any inconvenience during life from the presence of a large tumour in the abdominal cavity.

Dislocation of Head of Femur on to the Pubes.—Mr. PYE-SMITH related this case. A man, aged fifty-six, overbalanced in walking round a low wall in the dark and fell backwards, dislocating the left hip. He was brought to the Sheffield Public Hospital and Dispensary late the next day. The injured limb lay straight by the side of its fellow, but the foot and the knee were everted almost to a right angle. The head of the femur was easily seen and felt beneath Poupart's ligament, just external to the femoral artery, which was slightly displaced inwards. The two thighs measured precisely the same from the anterior superior spine of the ilium to the adductor tubercle of the femur, but the right leg was an inch shorter than the left owing to an old fracture above the ankle. Bryant's line was also equal on the two sides, but the great trochanter was a quarter of an inch nearer the middle line of the body on the injured than the sound side. Reduction was effected twenty-two hours after the accident by traction in the axis of the limb in a slightly over-extended position combined with rotation inwards.

A meeting was also held on December 22nd, Dr. Bartolomé in the chair.

Thoracic Aneurysm.—Mr. DYSON showed a man aged thirty-three with Thoracic Aneurysm. The probable cause was his work, which is heavy and laborious (railway spring worker). The symptoms were pain over the seat of tumour, radiating to the left side of neck and down the arm; almost complete absence and some lagging of radial pulse. The local physical signs were those usually present in aneurysm, except that there was no thrill. The treatment was absolute rest in bed, and iodide of potassium in increasing doses; he is now taking fifteen grains three times a day. The diet was the ordinary liberal diet of the infirmary, with no special restrictions. Great improvement in the size of the tumour had taken place.

Paralysis of Musculo-spiral Nerve from Pressure during Sleep.—Dr. SIDNEY ROBERTS introduced this patient, a gardener, aged twenty. He went to bed on Dec. 5th in his usual health, but awoke the next morning with paralysis of the extensors of the wrist, the longer extensors of the fingers and thumb, and the supinators, and a feeling of "pins-and-needles" in his left hand. The extensors of the elbow were not paralysed. The paralysis and numbness had continued, and the thickest part of the left forearm was now half an inch less in circumference than the right. Dr. Roberts stated that it was evident that lead poisoning was not the cause, and referred to the absence of symptoms of such a condition. There was no history or sign of any traumatic lesion or violent contraction. There was some doubt as to its being rheumatic.

Miners' Nystagmus.—Dr. S. ROBERTS also introduced a patient, aged twenty-five, with this affection. He had worked in a coal-pit for seventeen years, but only for the last eighteen months had he done "holing"—working on his side. He complained of his eyes first about a month ago, but continued to work up to a fortnight ago, when he was compelled to desist. The oscillations were particularly marked in the left eye, and were vertical in direction; in the right the globe rotated round its antero-posterior axis. The fundus of both eyes appeared healthy, except for the

presence of a myopic crescent in the left eye, which was also amblyopic.—Remarks were made by Mr. Snell, Mr. Jones, and Dr. Johnson.

Pneumonia occurring in Children.—Dr. GWYNNE read this paper, and in the course of his remarks he gave it as his experience that pneumonia at the apex was by no means so common as some writers had asserted. He maintained that the subjects of it were, as a rule, of a weakly and scrofulous type, which class of children would naturally be more numerous in the crowded districts of the metropolis and other large towns, and this fact probably explained the relatively large percentage which some writers assigned to these cases. He drew attention to the prominence of head symptoms in these cases, sometimes at an early stage, puzzling the medical man as to whether he had to deal with a case of meningitis or not, cough being by no means a prominent symptom, and often being absent for days. He went on to instance several cases of pneumonia where the real disease was masked by symptoms which pointed to the head or to the alimentary canal as the seat of the disease. He referred to the danger of collapse of lobules, due to whooping-cough and measles, and related the history of one of these cases of chronic pneumonia the result of an attack of whooping-cough a year previously. He concluded his paper with some observations as to treatment.—Remarks were made by Mr. Jeffreys, Dr. Dyson, Mr. Jackson, Mr. Reckless, Dr. Martin, Mr. Barham, Dr. S. Roberts, and the President.

Reviews and Notices of Books.

Electro-therapeutics. By WILHELM ERB, M.D. Translated by A. DE WATTEVILLE, M.D., with the assistance of J. CAGNEY, M.D., and A. J. S. KER, M.D. Vol. 6 of von Ziemssen's "Handbook of General Therapeutics." Pp. 732. London: Smith, Elder, and Co. 1887.

Medical Electricity. By ROBERTS BARTHOLOW, M.D. Third Edition, pp. 304. Edinburgh: Young J. Pentland. 1887.

Electricity in the Treatment of Disease. By JAMES R. TUNMER, M.R.C.S. Eng., &c. Pp. 108. London: E. W. Allen. 1886.

THE bare fact that three books upon the same subject come under consideration at the same time demonstrates the attention which this form of treatment is at present receiving. Of the three above named, only the first two deserve serious criticism. The third may be at once dismissed with the remark that, while it is an obvious compilation from many sources, it appears to have been loosely put together; inaccuracies are of frequent occurrence—indeed, it is characteristic of the general style of the book that the names of some important authorities quoted are rarely correctly spelt. The other two volumes are most valuable contributions to medical literature, and, although they travel over the same ground to a large extent, they are curiously different both in arrangement and in treatment. Neither volume comes to us in the first freshness of its youth. Professor Erb's has passed through the hands of the translator, and has thus necessarily been somewhat retarded, while Dr. Roberts Bartholow's work has reached the third edition already, the first edition having been published in 1881. The former volume is much more complete than the latter, and has a somewhat different range. It commences with a historical survey of electro-therapeutics, which affords a very interesting retrospect. While doing full justice to the labours of Duchenne, Professor Erb insists upon the importance of the work of German investigators. From such an authority, his remark that "to the present time we are still in the empirical stage with regard to electro-therapeutics proper" must come with disappointing force. The next section comprises a physical introduction, dealing with different kinds of current, with coils, batteries, and various accessories, and with the laws of resistance, internal and external. This section appears rather brief, and is not at all times easy reading, from what would seem to be undue condensation. Sections upon physiological action, methods of electrical investigation, and electro-diagnosis, together with a consideration of general electro-therapeutics, follow, and very adequately pave the way for the sixth section upon special electro-therapeutics, the importance of which may be gathered from two-thirds of the volume being devoted to it. For the sake of completeness the author has had to draw upon the recorded observations of others to supplement his own investigations, and the result is that as we read all that has been done we obtain an almost too crowded picture of the applications of electricity. Necessarily the nervous system and its diseases are dealt with in detail: definite lesions of the brain, spinal cord, and peripheral nerves are followed by the more indefinite neuralgic and neuralgiform affections, by spasm and contracture, and by anæsthesia. Of the central and other functional neuroses and the diseases of the organs of special sense the author speaks in more uncertain terms. We are constantly reminded of the difficulties barring the way, resulting from some lack of unanimity among investigators, as well as from their dependence upon the patient's statements. The book is forcibly written in the lecture form, and appears to have lost nothing in the act of translation. Dr. de Watteville and his coadjutors are to be heartily congratulated upon the success of their labours.

Professor Bartholow's practical treatise on the applications of electricity to medicine and surgery, having reached a third edition, scarcely requires detailed notice. Originally intended for students and practitioners, it starts by assuming an "entire unacquaintance with the elements of the subject"; hence nearly a hundred pages are devoted to a very lucid exposition of what the author terms "electro-physics." It next deals with electro-physiology somewhat briefly. Electro-diagnosis and electro-therapeutics receive fuller attention; and, in conclusion, some space is devoted to the uses of electricity in surgery, to galvano-cauteries, and the various instruments for electric illumination as applied to medicine or surgery. The author speaks strongly of the need for serious study of his subject by members of the medical profession, believing this to be the "one mode by which electricity may be divorced permanently from charlatanry, which has profited by it commercially, whilst it has impaired professional confidence in its utility." On the other hand, he is careful, as would have been anticipated from the author of a valuable contribution upon materia medica and therapeutics, to warn us that medical electricity is to be regarded solely as *one* of our approved remedies, rather than a panacea. There can be no doubt that the universal application of any form of treatment, electrical or other, brings a speedy Nemesis of scepticism as its failures are recognised. The book is enriched with numerous illustrations, and has obviously been very carefully prepared. A few oversights occur in the paging of the index, but these are small matters when compared with the general excellence. Of the two books the Electro-therapeutics of Professor Erb is the more elaborate and is better adapted to supply authoritative statements to the scientific student; while the second appears to be more fitted by its extreme lucidity for the use of busy practitioners who require a guide in practical electro-therapeutics without having time or inclination to be burdened with the niceties of electrical science.

Athletics and Football. (Badminton Library Series.) By MONTAGUE SHEARMAN. London: Longmans, Green, and Co. 1887.

THIS volume of the Badminton Library of English Sports and Pastimes devotes itself to the consideration of those contests which of late years have again become popular among gentlemen, after having long been abandoned to

professional "peda." The story of this revival is well told, as is also the history of athleticism generally in England. Indeed, from the earliest times our countrymen have practised and excelled in hardy exercises, such as "leaping, wrestling, casting of the stone, and playing with the ball." No doubt the war with France, which occupied the first fifteen years of the present century, was the great cause of the neglect of the systematic practice of athletics, the more hardy and most vigorous of the population finding a vent for their superfluous energies in the service of the army and the navy; for though we hear of occasional feats—such as Captain Barclay Allardics's performance of walking 1000 miles in 1000 hours, and the cross-country steeplechase got up by six medical students at Birmingham in 1838,—it was not till 1850 that a regular athletic gathering was held. This was at Exeter College, Oxford, whose example was soon followed, and taken up on all sides by schools and colleges "like wildfire," ultimately leading to the formation of large associations, of which the Civil Service is believed to have been the first.

In the introduction, Sir Richard Webster, himself a distinguished athlete, speaks wisely and temperately of the advantages to be gained in the practice of athletics when judiciously managed and properly supervised, and some of his remarks are deserving of the highest consideration. For example, speaking of school athletics, he says that "one or more of the masters who have themselves been distinguished in muscular pursuits" should superintend the various games, since "attention to such a matter as this will prevent boys from being made to play games for which they are not adapted; for instance, very little practice or tuition in running would find out boys who are unfitted for football or incapable of extreme exertion." This is a point which THE LANCET, at the time of the School Commission, emphatically insisted upon, and we are pleased to find it enunciated by so high an authority. The late medical officer of Marlborough, Dr. Fergus, has frequently told us that more mischief was done by permitting boys to join indiscriminately in games on first entering school than resulted from all the accidents that occurred; and he was careful not to allow boys to make such trials till he was assured of their stamina and powers of endurance.

The author's observations on training are judicious, and it is gratifying to find that a more rational mode of bringing the body into the highest possible condition of health is now adopted. We too have wondered in the past how men sent into training managed to survive the ordeal when "gorged on meat, eggs, &c., three times a day, port wine and figs in the evening; sent to bed at ten to sleep, till they rise at eight in the morning, to commence a fresh attack upon mountains of steaks and chops." The differences and peculiarities of the Rugby Union and the Association games of football are fully entered into. It certainly seems absurd to designate the former as football at all, the main part of it being scrimmages with the body and collaring and passing with the hands, and the term *rageries de grosses pelotes*, used in a proclamation of Edward II. forbidding the game, seems most appropriate to it. Among out-door sports apparently in favour with the author is that of "paper chasing," though its future is doubtful, owing to various reasons—for instance, the difficulty of arranging for large fields, in consequence of the damage done to the hedges &c., and the objections of farmers.

In conclusion, we give this work our hearty approbation. It is clearly and plainly written; the description of the various sports is so minutely and vividly given that a person unacquainted with athletics can follow the minutest detail of the pastime under consideration; whilst the colouring of the scenes described is so true, that we have, during the perusal of the work, fancied ourselves twenty years younger and once more on the running-path. We recommend the work to those of our profession who have the medical supervision of schools, and to all who are interested in the physical education of youth.

OUR LIBRARY TABLE.

Journal of Anatomy and Physiology. Conducted by Professors HUMPHRY, TURNER, and M'KENDRICK. Vol. XXII., Part II. January, 1888. London: Williams and Norgate.—Amongst other memoirs, this part contains the following:—1. The Tongue and Gustatory Organs of Fiber Zibethicus, by Fred. Tuckerman, with a plate. 2. The Histology of the Skin of the Horse, by Fredk. Smith, with a plate. 3. The Condition of the Pupil as a Guide in the administration of Chloroform, by Henry 1. Neilson, with a plate. 4. An account of some Experiments which show that Fibrin Ferment is absent from Circulating Blood, by John B. Haycroft. 5. Comparative Data from 2000 Indian Crania, by R. W. Schufeldt. 6. On the question, Can the existence of a tendency in the form of the Skeleton of the Parent result in the actuality of that change in the Offspring? by W. Arbuthnot Lane. 7. The Pharmacology of the Nitrites and Nitro-glycerine, by G. Armstrong Atkinson. 8. Anatomy of Megaptera Longimana, three plates. 9. Variations in the Hippocampus Major and Eminentia Collateralis in the Human Brain, by Robert Howden, with a plate. 10. On the Circle of Willis, by Professor Windle. 11. The Innervation of Axillary Muscular Arches, by J. T. Wilson. 12. The Pineal Body in the Walrus and Seals, by Professor Turner. 13. Abnormal Distribution of Arteries and Veins in the Neck, by W. P. Mears. The part also contains the Proceedings of the Anatomical Society of Great Britain and Ireland.

Tenerife and its Six Satellites; or, the Canary Islands Past and Present. By OLIVIA M. STONE. Two vols. London: Marcus Ward and Co. 1887.—These two volumes possess an importance at the present time, scarcely perhaps anticipated by the authoress at the time they were originally undertaken. They consist of the notes of a journey extending from August, 1883, to February, 1884—that is, before Teneriffe, or, as the authoress prefers, Tenerife, had attracted much attention as a health resort. Meanwhile, publication has been delayed by ill health, and many of the conditions have been changed; the islands are no longer so difficult of access, and hotel accommodation has been provided. In spite of these facts, however, nothing has yet been written which gives such a full picture of personal experiences during a protracted visit. Mrs. Stone has, she informs us, been careful to reproduce notes taken at the time—often, indeed, written in the saddle,—and she has mingled these with a certain leaven of quotations from historical writers sufficient to justify her title of "Past and Present," and to give an interest apart from the mere translation of impressions into picturesque and forcible language. We gather both from the narrative and from the tables in the appendix that Teneriffe and its satellites are characterised by a smaller rainfall and a lower degree of humidity than Funchal, and that the average range of temperature at Las Palmas, Gran Canaria, is from 59° Fahr. in February to 75° Fahr. in August; it would appear that the thermometer frequently reaches 72° or 73° even in January and February. This is a book which should be read with advantage by anyone undertaking a trip to the Canary Islands for health or pleasure. It must not be forgotten, however, that the invigorating north-east wind, which is mentioned so approvingly, does not commend itself to all invalids.

Revue Internationale Scientifique et Populaire des Falsifications des Denrées Alimentaires. Première Livraison. Septembre, 1887. ALBERT DE LANGE Éditeur, Amsterdam. Londres: Hachette et Cie.—Everyone must wish well to this spirited attempt at international action in regard to

adulteration. The new journal is published in Amsterdam, Paris, Rome, Leipzig, Madrid Brussels, London, St. Petersburg, Vienna, Lisbon, and Stockholm. It is printed in double columns, chiefly in French, but sometimes in French and German, and in one instance in French and English. Many well-known names appear as *collaborateurs*, and some of the articles in the first number are interesting and valuable. Of the articles, some are devoted to descriptions of the measures adopted in different countries for the repression of adulteration, while others deal with methods of analysis. In the latter class must be mentioned the valuable paper of Professor König of Münster on Peptones, and of Professor Hanauset of Vienna on the Adulteration of Spices. The latter is illustrated with microscopic drawings, and the author, who has much to tell, promises a further communication. Defects due to the polyglot character of the journal are evident enough, but these will doubtless diminish as the work goes on. We sincerely wish the Amsterdam editor success in his difficult undertaking.

Transactions of the Medical and Physical Society of Bombay. No. X. New Series.—It is very encouraging to find that medical science is not neglected even abroad, and by those whose time must leave but little leisure for recording clinical and other observations. For this reason we welcome these Transactions and we esteem those of our *confrères* who have found time to record some of their cases. The short notes on enteric fever by Surgeon Richard Baker, Brigade Surgeon C. MacDowall, and Surgeon M. A. T. Collie contain much that is practical and instructive. Brigade Surgeon H. V. Carter has contributed the following interesting cases, and his discussion of them shows the possession of considerable clinical acumen:—1. Clinical Memorandum on a Case of Complete Plugging of the Right Pulmonary Artery, associated with Mitral Stenosis and Incompetency and with Pulmonary-Apoplexy; atheroma of both pulmonary arteries. 2. Notes of a Case of Fever (? Enteric) ending fatally from Ulceration and Perforation of the Ileum; compiled from data furnished by Surgeon P. J. Damania, in charge of Satara Gaol, with specimen and drawing, forwarded through the President of the Society. Some remarks on Fodor's Experiments concerning the Microbe-killing Power of the Healthy Blood Current, with some application to Indian disease, by Brigade Surgeon C. MacDowall; Notes on a Case of Ainhum, by Assistant Surgeon K. B. Cooper, and a note on Lobelia Nicotianæfolia, by Surgeon-Major W. Dymock, are other interesting communications. Dr. W. Gray, Dr. Kirtikar, Veterinary Surgeon J. H. Steel, Surgeon A. Faulkner, and Dr. Ghollay have also contributed to this volume.

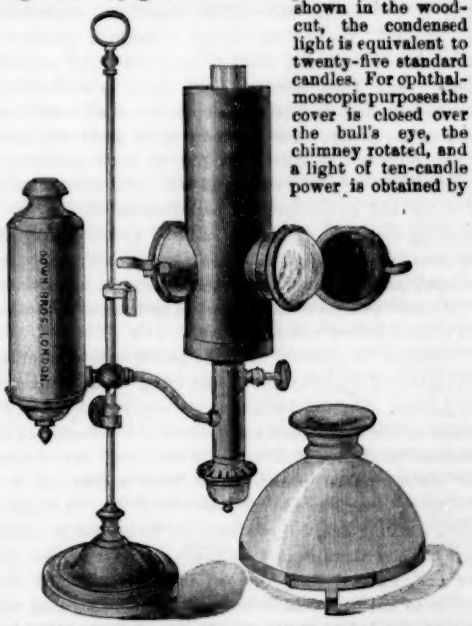
The A B C of Modern (Dry Plate) Photography. Twenty-second Edition. London: The London Stereoscopic and Photographic Company (Limited).—The first forty pages of this little book are devoted to the most elementary instruction, and are clear, practical, and not overburdened with detail. Then follow chapters for the more advanced student, including lantern slides, enlarging, paper negatives, various modes of printing (old and new), and photomicography. It is difficult to overrate the value of the camera, correctly used, as a means of registering scientific facts, and with progress in electric and other brilliant artificial lighting its use will probably be greatly extended in clinical application. No amount of book-reading will enable an indifferent photographer to advance beyond a certain point, but a volume like the present will open the gate to many to whom the easily mastered art will be of the greatest value.

THE municipal authorities at Madrid have decided to close all the theatres of the town which are not lighted with electricity.

New Inventions.

LAMP FOR LARYNGOSCOPIC AND OPHTHALMOSCOPIC EXAMINATION.

THE accompanying illustration represents a new form of lamp for laryngoscopic and ophthalmoscopic examination, and, combining as it does the advantage of convertibility into an ordinary reading lamp, will, I think, be found exceedingly useful by members of the medical profession, especially where gas is not obtainable. The light can be arranged at any height or turned in any direction, and fixed at that point by means of the binding screw on the upright rod. The lamp is fitted with a Silber burner, and when arranged for laryngeal and rhinoscopic examinations, as shown in the woodcut, the condensed light is equivalent to twenty-five standard candles. For ophthalmoscopic purposes the cover is closed over the bull's eye, the chimney rotated, and a light of ten-candle power is obtained by

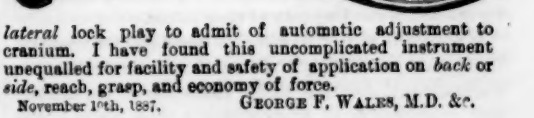


opening the shutter. One feature of the lamp is using a chimney of large diameter with perforated collar at the base to allow the passage of a stream of cool air between the glass and metal chimneys, thereby preventing fusion of the former. The chimney itself is of blue glass, to provide for the absorption of the yellow rays. For use as an ordinary lamp it is merely necessary to remove the metal chimney and adapt the opaque glass shade. I have had the lamp in constant use for a period of eighteen months, and it is as efficient now as when it left Messrs. Down Bros., of St. Thomas's-street, who are the makers.

GEO. ALFRED CARPENTER, M.B. Lond.
Evelina Hospital for Children, Southwark-bridge-road.

MIDWIFERY FORCEPS.

MESSRS. ARNOLD AND SON have made for me midwifery forceps, embracing the following points of construction: Long curved blades with handles correspondingly curved, so as to secure parallel axis traction, and knot at end of handle to prevent slip; also with joint allowing enough



lateral lock play to admit of automatic adjustment to cranium. I have found this uncomplicated instrument unequalled for facility and safety of application on *back* or *side*, reach, grasp, and economy of force.

November 10th, 1887. GEORGE F. WALES, M.D. &c.

THE LANCET.

LONDON: SATURDAY, JANUARY 14, 1888.

EVER and again the question crops up and clamorously craves an answer, whether medical men ought to take an active part in politics? Clearly this is what our near ancestors were wont to call "a case of conscience," which has been not inaptly defined as the "formulated expression of a timorous desire to do something suspected to be wrong." The answer to our immediate question is obvious. As citizens, medical men are fully as competent, and have quite as much right, as their fellow-subjects to form and promote opinions on affairs of state and public policy. The point to make plain and insist upon, however, is that it is not in their professional character, or with use even, still less with abuse, of their position and advantages as practitioners of the art of healing, that their opinions should be promulgated. The medical man is a policeman in the matter of health, physical, mental, and, in a sense, moral, and he must be distinctly "off duty" and out of uniform when he votes or asks others to vote on general political issues.

It cannot be gainsaid that the practitioner of medicine has manifold opportunities of exercising "undue influence' in politics. Nothing but the surpassingly good and strong sense of the community could resist the influence of the medical profession if it seriously laid itself out to direct or control public policy. This may appear to be a sweeping assertion, and undoubtedly it will be regarded as a startling one, but we have no hesitation in making it. Socially there cannot be any question that, for good or evil, medical men have an influence which, if they chose to use it, would be irresistible, and compared with which the influence of the priests of the middle ages was mere child's play. However amenable men may be to the terrors of a future life, the health experiences of the present and the dread of dying are such formidable factors in the production of the mental state and opinions, that, even if there were nothing other than these considerations—and there is much, as every practitioner knows,—there would be more than enough to give the men who practically hold the talisman of health in life transcendent authority and influence. Happily for the well-being of society, the medical profession has never in the history of its development covered itself with the disgrace of an affected and mysterious supremacy. So much cannot, most regretfully be it avowed, be said for the Church, which has even tried, though in vain, to press medicine into her service for the domination and enslavement of the world. The progress of medicine has in every land tended to enlightenment; and it has done not less, perhaps more, for the emancipation of the minds of men than for the health and longevity of their bodies.

It would be a dark day for the world and for science if the speciality of a study of nature, whether in health or in disease, should ever lead to the exaltation of the teachers and practitioners of science into a class clothed with mystery or endowed with any authority except that which may accrue to the argument of reason and the inferences of common sense. We are one and all students of something, and the specialties of study and knowledge are essentially equal; and it is for the public advantage that they should be so held. The full development of this truth will sooner or later tend to make all citizens free and equal in the eyes of the multitude; and as enlightenment extends, it will be easier to perceive that the medical man is fully at liberty to hold strong opinions outside his profession, and to express them as forcibly as he pleases; and that, when he does so, just as much or little weight should attach to his advice and example as may be due to his character and position as a simple citizen, without the least regard to his profession. It would be well if this could be borne in mind by members of our profession and the public alike; and we would even go so far as to say that, pending the evolutionary process by which the work and character of "the doctor" are to be placed on a proper footing in *public* esteem, it would be a graceful act and salutary precaution if the practitioner of medicine would take especial pains to lay aside his professional character with all its distinctive advantages and authority, whensoever it pleases him to play the politician, or to take part in "politics"—in a party sense so-called. We do not for a moment deny that there are grave questions of public health in regard to which the profession may wisely speak, and ought to be heard, but with the great bulk of political matters medical men, *as such*, have no sort of concern; and if they cannot make it clear that they are neither using nor abusing their professional position and opportunities in the service of a party, they would be well advised to stand aside.

THE time is approaching when the profession at large may reasonably look to the leaders of thought and investigation amongst us for some authoritative teaching on the province and utility of antiseptic treatment in phthisis. It will hardly be denied that the question is at present in a most unsatisfactory state of confusion, or that our professional credit and the welfare of sufferers alike render it imperative that the brilliant hopes aroused by the reports of continental investigators should be subjected to the most searching tests at our command. From time to time rumours more or less authoritative reach us from France and Germany of the wonderful results obtained in the treatment of phthisis by antiseptic measures; but the precise, detailed, and corroborated evidence so necessary to secure general acceptance is still wanting, and the attitude of the profession on this side of the Channel is for the most part one of reserve, if not of scepticism or active hostility. It is much to be desired that the general practitioner, who has little time for original investigation or the sifting of complicated and sometimes contradictory reports, should be able to satisfy himself whether in employing antiseptics in phthisis he is using a potent and hopeful remedy, or merely following a Will-o'-the-wisp destined to lead his patients and himself only to disappointment. Of the value of antiseptic measures in surgery and gynæcology there is no room for doubt, but their application to pulmonary disease raises such novel issues that the unquestioned success of Listerism hardly does more than excite a

presumption that similar measures may possibly find a field of usefulness in thoracic affections. Whether such a field has been found and admits of being successfully worked is still a *lis sub judice*, and we are anxious to press as earnestly as we can for its early decision.

Antisepsis in phthisis has taken three forms: first, the administration of carbolic acid, thymol, creasote, turpentine, or other drugs by inhalation; secondly, the application of some of these remedies by hypodermic injection; thirdly, the employment of rectal injections of sulphuretted hydrogen and carbonic acid gas, according to the method of BERGEON of Lyons, to whom this line of treatment owes its origin.

The first method, that of inhalation, is in wide use in this country, both in hospitals and in private practice, and general experience seems to show that in some cases it possesses a certain value. It undoubtedly corrects the viscidity and fetor sometimes present in the expectoration, and in so doing conduces to the patient's comfort and improves his constitutional state. It also checks the multiplication of bacilli which goes on so rapidly in putrefying vomicæ, and thus may tend to reduce the chances of secondary infection. But we are still without definite evidence of the power of antiseptic inhalations to limit the extension of tubercular disease in its incipient stage—the time, above all, in which their value might be expected to prove most signal and permanent.

The second method—that of hypodermic injection—has not, we think, been extensively practised in this country, but the reports of some French experimenters regarding it are extraordinarily favourable. Carbolic acid has been administered for long periods in steadily increasing doses, with an alleged arrest and cure of the disease in a large percentage of cases. For our own part, we are unable unreservedly to accept these results until thoroughly corroborated, but the question is one that readily admits of being tested, and of which a speedy and final solution may be reasonably expected.

The third method—the gaseous injections per rectum advocated by BERGEON—was announced with much confidence, and its success in the hands of continental observers would seem to be considerable. Unfortunately, British experience has so far failed definitely to substantiate these results. The treatment has been tried at the Brompton Hospital and elsewhere, and although in some cases a marked preliminary improvement ensued, the ultimate results have been usually disappointing, and in many instances there has been complete failure. Some observers have even failed to convince themselves of the truth of the theory on which this treatment rests—namely, that the sulphuretted hydrogen injected per rectum is really excreted by the pulmonary alveoli. BERGEON'S method has the serious objection that it often causes a good deal of pain and uneasiness, and hence is frequently resisted by patients. This must render the practitioner somewhat reluctant to insist upon carrying out this treatment, unless he can honestly promise a fair prospect of great benefit. Here, again, as we have before insisted, some authoritative teaching is urgently required.

In estimating the value of antiseptic measures in phthisis we must be always on our guard against one obvious source of fallacy. In all hospitals for consumption where the admission of patients is prudently regulated, a marked preliminary improvement is usually to be observed in the majority of cases, and that under the most diverse methods of treatment. The improved diet and better air which the poorer classes obtain by admission to hospital, and the substitution of cod-liver oil, arsenic, or hypophosphites for deleterious nostrums and cough mixtures, rarely fail to produce an amelioration of all the more distressing symptoms. Now, if in addition to the above measures antiseptics be employed, the latter are apt to get the chief or sole credit, and hence to obscure the question at issue. The value of antiseptics can only be established by excluding this source of fallacy, and by a careful comparison of results. The time and pains expended by observers in the elucidation of this question will be amply rewarded if their result be a clear and practical guidance upon one of the greatest therapeutic problems of the time.

IN Bombay the Contagious Diseases Acts have had a peculiar experience, having been first introduced, next repealed, and now reintroduced. This last took place on September 1st, 1880, so that the Acts have been in full working for upwards of seven years. A report from the Surgeon-General to the Government Secretary, dated July 20th, 1887, gives the results of the working of the Acts for the six months ending May 31st, 1887, as well as statistics for the years 1874 to 1886 inclusive. From this report it appears that on December 1st, 1886, there were 1477 prostitutes on the register, 158 were registered during the six months, 145 were removed, and 1490 remained on May 31st, 1887, showing an increase of 13 against a decrease of 21 in the previous six months. The total number of European women was 59 at the beginning of the six months and 58 at the end, and the Surgeon-General remarks, "It is satisfactory to note that there were no Englishwomen." This gives an opportunity for noticing what must always be a very important fact in connexion with these Acts in India. The fact of a woman being a prostitute is, as regards the native women (who comprise the great majority of prostitutes), a matter of "caste," and the daughter of a prostitute becomes, almost inevitably, a prostitute too. This fact will explain why the report, very complete though it is, does not give any details as to reclaiming these women, which so long as caste continues must be hopeless. During the six months there were 5962 medical examinations made, out of which 3·9 per cent. were found to be diseased, as compared with 6·166 and 4·1 respectively in the previous six months. During the same interval 238 women were admitted into the Lock Hospital, which, with 51 who were under treatment on Nov. 30th, 1886, made a total of 289, against 313 in the previous half-year. Of these, 194 were discharged cured, and 95 remained under treatment; there were no deaths.

A very significant fact is that out of 76 cases admitted into the Colaba Hospital during January, February, March, and November, 50 (or 65 per cent.) came from troop-ships, while 22 only were contracted locally. The medical officer regards this as the result of the repeal of the Acts in England. As the Surgeon-General remarks, "the disease no doubt develops on the voyage out; for, although really

contracted in England, it cannot be discovered by medical examination before it does develop, and the only means of prevention has been temporarily set aside by the influence of that class of moral agitators at home who would similarly deprive Bombay of the benefits of the Act." The report of Mr. BRYCE GORDON, the Chief Medical Officer of the Lock Hospital, is most instructive, as showing the value of the Acts in reducing not only the amount of disease, but also its severity. Thus, in the two hospitals (Jamsetjee Jejeebhoy and Gokaldas Tejpal) there were admitted between 1875 to 1879—before the reintroduction of the Acts—an aggregate of 6978 cases. In the years 1882 to 1888, after the Acts had been in working two years, the admissions were 5077, showing a very considerable reduction. This latter was even more marked in the three dispensaries, Native, Manakji Petit, and Shankershett's, the ratio of decrease varying from 461 to 581 per 1000. In the military hospitals the reduction has been less apparent owing to the importations previously alluded to, but when these are eliminated the reduction among the troops is well marked. The Marine Battalion Hospital shows a diminution of 20 per cent. In the Royal Navy and Indian Marine the following details show the good results of the reintroduction of the Acts. H.M.S. *Bacchante*, after a stay in harbour of nearly four months, had 12 out of a crew of 578 men suffering from syphilis, contracted in Bombay. H.M.S. *Osprey*, over six weeks in the harbour, with a crew of 150 men, one case. Troop-ship *Jumna*, first visit, total crew 261 men, no disease. Second visit, with same crew, 4 cases. H.M.S. *Briton*, 235 men, 135 days in harbour, 4 cases. And similar favourable reports could be multiplied. In the aggregate, out of 12,001 sailors ashore 86 contracted primary syphilis, or at the rate of 7 per 1000. And, as Mr. GORDON remarks, it is not only the seamen of Her Majesty's service who benefit, but also the crews of the mercantile marine—an estimated number of 25,000 annually. With reference to the character of the disease, Mr. GORDON states that from the army "all reports agree on one point, that the character of the disease is much milder than it was formerly." Brigade-Surgeon PRESTON reports of the cases admitted into the Colaba Station Hospital: "The diseases incurred during the six months ending 31st May, 1887, were of a mild character, and that from these cases there have not been any admissions from secondary syphilis." In the navy, Dr. MARTIN, of H.M.S. *Eurydice*, states that the sores contracted by his men were "multiple non-infecting sores." Dr. MAHON, of H.M.S. *Bacchante*, says of his cases, "all were of a mild type, and no secondary symptoms have as yet followed in any case." This is very different from what Dr. MASON, of H.M.S. *Undaunted*, reported in 1876: "The majority of the venereal affections were contracted at Bombay; the syphilitic cases were of a bad type (hard infecting sores, followed in several by secondary symptoms)." With reference to the civil population, Professor GRAY, senior surgeon of the Jamsetjee Jejeebhoy Hospital, reported in 1884 that "sloughing and phagedænic chancres, which under previous conditions were frequently seen, are now practically things of the past." Professor MACKONACHIE, of the Ophthalmic Hospital, in the same report, stated that "Diseases of the iris have decreased considerably, and, as a majority of these are attributable to syphilis, it is presumed that the Contagious Diseases Act is to some extent lessening their primary cause." Dr. WADIA, in charge of the Loviji Wadia Dispensary, states that during the last six months (1887) there was not a single case of hard chancre admitted into the dispensary.

Mr. GORDON concludes his report thus: "So that if the mild type of the disease is taken as an indication of the efficiency of a Contagious Diseases Act, there can be no doubt that this special form of sanitary legislation has done much good in this city." The authorities are to be congratulated on possessing so energetic and enthusiastic a medical officer as Mr. GORDON has shown himself to be. It appears that he spent part of his furlough in visiting the London lock hospitals, and the result may be given in his own words: "I am in a position to be able to state that we have no such virulent syphilis in Bombay as there is to be seen at the clinic of Mr. BERKELEY HILL in Dean-street, Soho." All this proves most conclusively that legislation for the prevention of syphilis and kindred diseases is, when honestly carried out, capable of very good results.

THE acceptance accorded to the address to the QUEEN from the Committee she nominated to report on the best means of effecting her wish to benefit both the nurses of the poor and the poor whom they nurse, is the best proof that in the main their suggestions are on the right line. Her Majesty's advisers were well-chosen: the Duke of WESTMINSTER, Sir JAMES PAGET, and Sir RUTHERFORD ALCOCK. They are all men of large experience in hospital administration, and, while sympathising with the real wants of the sick poor, are equally averse to any use of money that would demoralise or pauperise. It is to be remembered that the main proposal for the use of the Women's Jubilee Offering to the QUEEN originated with Her Majesty herself. It will never be forgotten as an illustration of the practical benevolence of the Sovereign's character that she diverted to an intensely charitable and kindly use a fund that might have been devoted to purposes entirely or mainly personal. Of course, the scheme has still to be developed, and it will be ultimately judged by its details and by its practical working. The great thing is that the idea that an intelligent and trained nurse to go like a good angel into the houses of the poor when they are ill is to be encouraged in every part of the kingdom. Let us cheerfully admit that such a merciful provision already exists in London, in Dublin, and possibly in other large towns. It is, indeed, one of the most striking and characteristic features of the Victorian era, the silent working of which is known only to those who labour among the sick poor, and especially to dispensary medical men. Among the minor and multiplied surgical miseries of life, perhaps too unheroic for admission into hospital, there are many in which the services of a competent nurse, co-operating with the medical adviser, is simply invaluable. We have known a young family with ringworm, the mother dead, and the father at work miles away from his home, where the most efficient medical skill would have been unavailing apart from the visits of a trained and faithful nurse. The educational value of such visits, in itself, is worth as much as the immediately curative results. The discipline enjoined and the lessons in tidiness and in

cooking for the sick are of permanent value. Such ministrations give almost startling reality to the words, "I was sick, and ye visited me." Though many details have yet to be elaborated, and though they will be looked for with interest and even anxiety, some are already suggested and virtually accepted. The scheme is to include England, Ireland, and Scotland. Here at least we are to be a United Kingdom. The common wants are the same in London, Edinburgh, and Dublin, and the sentiment of regard for Her Majesty and thankfulness for her glorious reign are shared by good women who are doing angels' work in each division of the kingdom. The women to be recognised as nurses are to be women of good education, good general hospital training, and special training in district work and in maternity hospitals. Many a mother's life will be saved if good nursing can be brought to carry out medical prescriptions of fresh air, antisepticism, administration of food, &c. Equally commendable is the suggestion that there should be two ranks of nurses—an upper order, to which all good servants may aspire by care and faithfulness in their work. The suggestion that the institution shall be identified with Her Majesty's name, and as a sovereign of fifty years' fame, goes without saying, though it is well said in the Report. We shall hope to be able to criticise the details of the scheme on a future occasion.

Annotations.

"Ne quid nimis."

THE HEALTH OF LONDON IN 1887.

MEASURED by its recorded death-rate, London was healthier in 1887 than in any year on record. The mean annual death-rate in London during the four quarters of last year was 19·6 per 1000, against 19·8 and 19·9 in the two preceding years, while in no year prior to 1885 was the London death-rate below 20·5. During the first seven years of the current decennium, 1881-90, the mean annual death-rate in London did not exceed 20·4 per 1000, whereas in the four preceding decennia of civil registration the death-rate ranged from 24·8 in 1841-50 to 22·5 in 1871-80. These figures speak eloquently of sanitary progress in London; while the still wide range of death-rates in the various sanitary districts of the metropolis conclusively proves that we have, at present, far from reached the lowest attainable death-rate for London. We shall have occasion to refer to this question of metropolitan local death-rates. It may be well to point out that the mean death-rate in 1887 in the aggregate of the twenty-eight large English towns dealt with by the Registrar-General in his weekly return was 20·8 per 1000, against 19·6 in London. But to refer to London, the death-rate last year from what are known as the principal zymotic diseases was equal to 3·02 per 1000, against 2·69 in 1886. This increase in the zymotic mortality in London last year was practically shared between measles and scarlet fever. The death-rate from scarlet fever, although considerably below the mean rate in the ten preceding years, was more than twice as high as the unprecedentedly low rate in 1886. The mortality from measles not only showed an increase upon that in the preceding year, but exceeded the ten years' average. The death-rate from the other zymotic diseases scarcely differed from the rates that prevailed in 1886. The mortality from enteric fever showed a further slight decline from the steadily decreasing rates in recent years. Only nine deaths from small-pox were registered among the population of London during the whole of last year. Infant mortality in the metropolis, measured by the proportion of deaths under one year to registered births, was equal to 159 per 1000, and corresponded with the recorded rate in the previous year, but exceeded the mean rate in recent years, owing to the excessive mortality from summer diarrhœa in the third quarter both of 1886 and of 1887. The rate of infant mortality in different parts of London again showed the usual noteworthy contrasts.

SOME CHARACTERISTICS OF MODERN MEDICINE.

THE present century has witnessed the development of three successive stages in the history of medicine, a brief consideration of which will be useful in helping us to realise the present position of each member of the profession and the possibilities which lie before him. There was, to begin with, the waning philosophical period, in which the light of science, though burning brightly here and there, was more apt than in the present day to be obscured by an intervening fog of untried speculations and suggestions in the minds of observers. Then came the era of minute investigation and experiment, of specialism in discovery. Now we find ourselves, though still indebted to the same methods, in a measure freed from the earlier conditions, and already entered upon the wider field of general ideas founded on experience of details, and of practice correspondingly enlightened. We need not now so closely devote ourselves to examine the functions and disorders of each organ by itself, and we have more insight into the mutual relations of many, and into the body as a whole. There is room in medicine for the energies of a Darwinian investigator who will join together the *disjecta membra* of isolated scientific efforts, and will bring to light the fundamental truths which underlie the numerous bye-laws of medical science. The recognition of this fact is not, perhaps, as general as it might be, but it is steadily gaining ground. As affording a recent illustration, we may quote the address delivered by Dr. John Williams of Melbourne before the Intercolonial Congress at Adelaide last year. In this careful examination of some leading characteristics of modern medicine particular attention was directed to the "natural history" of disease, or, in other words, to its whole course of development, as the true objective knowledge for the practitioner. The compensatory behaviour of organs and their interdependence were discussed with instructive accuracy in support of this opinion. Especially happy were the suggestions derived from a study of chronic renal disease and of cardiac lesions—notably that of mitral stenosis. No two morbid states could have been selected which more clearly prove the necessity insisted on in this address: that success in the management of illness does not depend on the partial intelligence of a narrow specialism, but on an exact understanding of those mutual relations which have been referred to, with the possible changes to which they are subject Opportunities for such clear and intelligent insight most naturally fall to the lot of the visiting practitioner, who must therefore, as a mere necessity of his position, be as highly trained as judicious, as sound in theory as practically skilful. His general knowledge must become progressively deepened by experience and by all available means of education till it has the character of a collective specialism, uniting ample breadth of view with strict exactitude. Nor is he designed for practice only, for he is again, in virtue of his position, a scientific observer. In this department of his duty, moreover, the passage of time has furnished him with facilities unknown before. Means of observation abound, channels for the publication of recorded facts have increased in number. There is much

for him to do if he will do it—if he will find for himself, wherever he may be placed, the will and the way to use the intervals of leisure allowed him to advance the knowledge of his art as revealed in the round of daily duty.

THE SMALL-POX EPIDEMIC AND HOSPITAL PROVISION.

IN connexion with the small-pox epidemic in the North of England we receive accounts of difficulties experienced by sanitary authorities who have made no provision in advance for the isolation of first attacks of infectious disease. Thus, a case of small-pox having been imported into Shipley, a request was made to the Bradford Corporation to receive it into their newly-acquired hospital; but, as they did not feel justified, under present circumstances, in receiving outside cases, the request was refused. Attention is again called to the practice followed by Dr. Fox of the Cheshire district. He induces his sanitary authorities to take as a hospital the house in which the infectious disease actually appears, and to this house further cases are removed should any such arise. This plan offers a solution of the present difficulty in so far as isolated cases and comparatively rural districts are concerned; but it is obviously unsuited to populous places, for very few ordinary dwellings that could thus be temporarily adopted by a sanitary authority are suited to the reception of a number of cases; and, as regards small-pox, any aggregation of the sick under such circumstances might be attended with very considerable risk. The plan has the further disadvantage that the healthy members of the family affected have to be disposed of, and unless they are paupers and can be removed to the workhouse, there is no legal power enabling a sanitary authority to remove or to maintain them elsewhere. Speaking quite generally, we would advise such authorities as have no hospital provision, and who cannot at once deal with cases on the Cheshire principle, to trust to vaccination; for emergency hospitals hurriedly erected for small-pox have, as a rule, done more harm than good, and they can rarely be ready in time to prevent extension of the infection.

ITALIAN WINTER RESORTS.

AN Italian correspondent, under date Florence, Christmas Eve, writes:—"Early in March Her Majesty Queen Victoria is expected to make the City of Flowers her residence, and the Dowager Lady Crawford has, it is known, placed the Villa Palmieri at her disposal. The Emperor and Empress of Brazil are already on their way to the same winter city, where also Mr. Gladstone is shortly expected to share the hospitality of Sir James Lacaita. Florence is so full of distinguished personages that other Italian cities are asking themselves whether they too are not equally entitled to similar patronage; and the answer is that it greatly lies with themselves if the traveller in quest of sun pitches his tent in them or not. Italy is full of health resorts only awaiting the outlay of a little capital and enterprise to reap the harvests long since monopolised by the French Riviera. What English invalid, for example, ever winters at Porto d'Anzio—that lovely Volscian bay within thirty-seven miles of Rome, so sun-bathed, even in January, that the snow-capped heights of Cori are almost welcomed as a refrigerator? Porto d'Anzio has all the requisites of a winter abode for the phthisical. Sheltered from the *tramontana* (or north wind), from the mistral (or north-west), from the *greco* (or north-east), she is exposed only to the balmy breezes from the sea, rarely agitated by anything like a gale. The semicircular upland around her is crested with trees which the municipality are judiciously tending; while the dust, which was certainly irritating to her wayfarers, has disappeared under proper metalling of her piazza and roads. The health statistics of the place are most favourable, as is shown by the signal success of her hospital for strumous and rickety children during the last sixteen years, and by the low rate of sickness and death in her too-populous prison (quite lately removed to another quarter). But with all these advantages to which may be added an excellent water-supply, Porto d'Anzio till quite the other day seldom saw an English visitor, except some enthusiastic archæologist robust enough to put up *at*, and to put up *with*, the poor osteria or fisherman's cabin that did duty as a hotel. To get to the place from Rome was the work of four hours, or the best part of a winter's day, two-thirds of the journey being performed in the diligence across a wildly picturesque, but rather dreary, not to say dangerous, campagna. Now a railway reduces the distance to an affair of two hours, and will ere long bring it down to less; and an excellent hotel, fitted up with every requisite for comfort, awaits the visitor at his journey's end. Medical advice, easily reinforced from the capital, is to be had on the spot. The rise of Porto d'Anzio to the position of an attractive winter resort ought to have a salutary effect on the many other 'sun-traps' that stud the Neapolitan, the Calabrian, and the Sicilian Riviera—spots equally with her favoured as to site and as to other natural advantages, but at present behind her as to hotel accommodation and accessibility to good professional aid. A carefully compiled report on the winter resorts of the peninsula (similar to that which is in preparation on her mineral watering places) would be an undertaking well worthy of the encouragement, if not of the direct initiation, of the Italian Government, calculated as it would be to attract enterprise and capital to scenes which only require a little of both to deflect into Italy the stream of prosperity that has hitherto flowed in an almost exclusively French channel."

THE MARGARINE ACT.

THE Margarine Act, 1887, came into force on the first day of the present year. As our readers are already aware, it is a very stringent measure, designed not only to protect the purchaser from fraud, but also doubtless to afford some assistance to British agriculture. Henceforth nothing may be sold as butter except "the substance usually known as butter, made exclusively from milk or cream, or both, with or without salt *or other preservative* [the italics are ours], and with or without the addition of colouring matter." All butter substitutes, and all mixtures of such substitutes with butter, must be described and sold as margarine. The provisions for the detection and punishment of offences under the Act are simple and definite. Only two loopholes occur to us. One is to be found in the words italicised in the above extract. What "other preservative" than salt may lawfully be used? The wily adulterator will, we fear, be apt to make experiments in this direction. The other doubt is suggested by some words in Clause 9. Here it is provided that an inspector or other authorised person may procure samples for analysis "if he shall have reason to believe that the provisions of the Act are infringed on this behalf." We do not see how an inspector can have reason to believe anything of the kind until an analysis has been made. If, under the Food and Drugs Act, an inspector could not take a sample of milk for analysis unless he had "reason to believe" it had been watered, very few of such frauds would be detected. There is at present an enormous importation and manufacture of the butter substitutes which must in future, in defiance of scientific accuracy, be called margarine. Some of these preparations are well made, and are excellent and cheap articles of food. Wise vendors will sell margarine of good quality, and, while conforming to the requirements of the Act, will

explain to purchasers the nature and the dietetic value of the article. The word "margarine" is, from a scientific point of view, inappropriate. It was, however, objected with truth against the alternative term "butterine" that ignorant persons might mistake it for butter. In spite of some defects, we welcome the new law as the most thorough attempt to stop adulteration that has yet been made. If it prove successful, a more comprehensive measure will ere long, we trust, be passed.

OXYMEL SCILLÆ IN WHOOPING-COUGH.

DR. NETTIER of Nancy writes in the *Revue Médicale de l'Est* strongly recommending the oxymel scillæ treatment of whooping-cough, with, where necessary, occasional ipecacuanha emetics, but without any of the usual pectoral syrups or cough mixtures which, from their containing morphia, tend rather to favour the clogging of the air passages with mucus than to diminish the virulence of the disease. It is important, he says, that the squill should be given on an empty stomach. As it is only prescribed once a day, the afternoon is chosen, two or three hours after dinner and one or two hours before tea. It is not given all at once, but an ounce and a half is divided into six portions, one of which is administered every ten minutes. The success of Dr. Nettier's method is vouched for by Professors Remy and Schimitt, who have both used it extensively in their practice, and who state in a note appended to the article that they have obtained the most satisfactory results. The preparation used is the oxymel scillitique of the French Codex, which differs somewhat from the B. P. preparation, being composed of 500 parts of vinaigre scillitique to 2000 parts of white honey. The vinaigre scillitique is similar to our acetum scillæ, but is made by macerating 100 parts of squill in 1200 parts of white vinegar, no spirit being added. Dr. Nettier mentions that the white vinegar he uses contains 117 grammes of acetic acid to the litre, the resulting oxymel scillitique containing, as he finds, only about half that proportion of acid. All the three authorities named insist on the importance of the exact preparation they use being employed. The treatment here mentioned was brought before the Congress of Nancy last year by Dr. Nettier, and since that time his further experience and that of his colleagues has tended only to convince him of its value.

DEATH AND DRINK AT WEYMOUTH.

A RECENT number of the *Southern Times* contains a lamentable story of an inquest on the body of a poor woman whose death was caused by burns. The chief interest of the inquiry was the disclosure of the way in which some people drink themselves into stupidity and incur risks of fire in a state of utter helplessness. A lodger gave evidence to the effect that she and her husband went to bed about a quarter past ten. At ten the deceased called asking for three-pennyworth of gin she had fetched for her. Two or three hours afterwards a heavy fall was heard below, and on the husband going downstairs he found the room on fire and the deceased on her knees and her face towards the front door. The husband was so drunk that he could give no help. The room contained vessels emptied of spirit and other indications of drinking. A difficulty was experienced in getting a medical man, and some remarks of the coroner were considered to reflect unduly on three or four practitioners who were, for various reasons, unable to go. Medical men are so much at everybody's beck and call that when they are not forthcoming the public is surprised to find that they have other engagements, and that sometimes, like other mortals, they are ill. The real pathos of the story is in the alcoholic part of it, and the wonder is that similar fatalities are not more frequent.

ESTIMATION OF INTESTINAL PUTREFACTION BY EXAMINATION OF THE URINE.

PROFESSOR POEHL of St. Petersburg has recently made a number of analyses, with the object of determining the amount of putrefaction taking place in the intestinal tract under various circumstances: these researches were based on the fact, as demonstrated by Baumann, that albuminoids are decomposed only in the intestine, and that their decomposition gives rise to the formation of sulphuric acid ethers in the urine. Estimating the "preformed," or free, and the combined sulphuric acid in the urine, the ratio between the two $\frac{S}{s}$ taken inversely serves as a measure of the putrefactive change that has taken place in the intestinal canal. As a rule, in healthy persons the preformed acid is about 10 times the amount of the combined. In dogs Morax found the ratio under ordinary conditions about 8. When iodoform was given in large doses the ratio rose to 35·8, showing the high antiseptic value of this substance. Bismuth produced no effect. From some experiments of Baumann's on the effects of calomel on hungering dogs, it appears that this drug has the power of decreasing the putrefactive changes in the intestine, partly because of its antiseptic properties, but mainly, probably, because of its purgative action. Experiments on the human subject with castor oil showed that the sulphuric acid ethers in the urine are not only not diminished, but actually increased, by its use, and calomel had no effect on them. Of course, only the soluble mercury compounds formed from the calomel can be expected to affect the organisms which cause putrefaction, and as these latter are ferments upon which soluble mercurial salts are known to have but a limited effect, the antiseptic action of such small doses of calomel as can be borne cannot be expected to be great. Dr. Poehl's own experiments on healthy persons showed the ratio between the preformed and the combined sulphuric acid $\frac{S}{s}$ to vary between 11 and 15. In one young man who had been living for years on boiled and sour milk the intestinal putrefaction seemed to be reduced to a minimum, $\frac{S}{s}$ varying from 28 to 35·8. In the case of a healthy vegetarian, too, the amount of combined sulphuric acid was very small. In a man suffering from choleraic diarrhœa, who had been given opiates and bisulphide of carbon water, the latter in large doses, the ratio was 36·2, showing the powerful antiseptic action of this substance. Here, in spite of the small amount of combined sulphuric acid, the quantity of indican was unusually large. As a rule, Dr. Poehl found that a large amount of indican corresponded with a large amount of combined sulphuric acid, and therefore a comparatively small value of $\frac{S}{s}$, though in exceptional cases this rose as high as 15.

PUBLIC HEALTH IN ONTARIO.

IN his fifth annual report to the Provincial Board of Health of Ontario Dr. C. W. Covernton states that the sanitary progress of the year has been satisfactory, and that it indicates an increasing interest in matters relating to public health on the part of the community. With a view of removing prejudice against vaccination, and of proving to the inhabitants the desire of the Board to render that operation as free as possible from all supposed risk, a vaccine farm has been established, and it is now maintained under Government surveillance. In connexion with the prevalence of diphtheria, it is stated that a report by Dr. Elisha Harris on an epidemic of a malignant type in northern Vermont is conclusive as to the connexion of the disease with the use of impure water, the water in question having been taken from a brook containing dead animals. In various ways diphtheria is coming

to be looked upon as an affection having relationship with the brute creation. In Ontario the question of how best to secure isolation and disinfection is regarded as a very pressing one. It is much the same in this country, although we have at least gained something by experience in what we have already done, and it is certain that the population themselves must to a large extent learn to appreciate the value of such remedial action before it can be applied on a scale of any sufficient magnitude. Dr. Covernton is evidently desirous of utilising the experience of the mother country in this and in other respects, and both he and the secretary of the Board quote largely from our past history in relation to efforts to promote the public health and to lessen mortality. The volume is an instructive one, and it forms one of a series which is calculated to be of considerable benefit, not only to the province with which it primarily has to do, but to other provinces and states needing information on the present aspect of the subject dealt with.

FARTHING AND HALFPENNY DINNERS.

IN our issue of December 18th, 1886, we noticed the institution of farthing dinners for the benefit of the poor children of Birmingham. The *rationale* of this experiment, which is based upon the nutritive efficiency of cheap leguminous food, need not again be discussed. It is satisfactory to learn, from the most recent reports upon the subject, that the advantages claimed at the outset for this new method in dietetics have not been discredited by the test of a year's practical application. Observations carried on during the last twelve months have shown that, at all events in the limited number of cases under supervision, school children fed on this system have benefited both physically and morally. Certain of them, specially selected for their defective bodily development, have thriven in a marked degree as soon as the farthing meal obtained a place in the daily round. The mental gain appears to be rather more doubtful, possibly from the greater difficulty of noting its appearance. Morally the children have distinctly profited, and this has been evidenced by improvement in temper, and in a diminution of the tendency to beg and pilfer, so common in others of their age and ordinary condition. The growing popularity of farthing and halfpenny dinners is apparent from the following statistics published by the Birmingham Committee. During the year which has just closed, 356,480 children have been fed in this way, as compared with 158,957 in the preceding year. Of this number 143,627 have dined at an individual cost of ·53*d.*, and 212,853 at ·39*d.*, though some 15,000 halfpenny dinners are included under this latter figure. The average cost per head over the whole number is therefore about ·45*d.*, and in this is included the expense of the preparation of food. It will surprise most of our readers to learn that this low rate of living, and even the absolute minimum of one farthing, is quite beyond the reach of many poor children. As a matter of fact, three-fourths of the children who partake of the dinners are utterly destitute, and have to be supplied with free tickets, the cost of which is defrayed by public subscription. Equally surprising is it that anything like a meal can be furnished for the mere fraction of a penny. Yet such is the case. This soup, very largely consisting of hot water, but still nutritious, and containing peas, lentils, and maize, thin cocoa, or bread-and-milk (half a pint), with a second course consisting of a round of bread with a little jam, can be had for a farthing where the number of children is large (400 to 500). We are told, moreover, that "the very cheapest dinners are by far the most popular." The question of how far the free distribution of food is a necessary sequel to compulsory education is forcing itself upon public attention. Where children are absolutely destitute, it is difficult to see how the requirements of mind and body can be separately considered. Some there are, indeed, who hold that the duty of the Government extends to feeding as well as training where abject poverty prevails; and if, as Mr. Sargant contends, the subsidy required for food under the new system of cheap dinners would not amount to more than £230,000 per annum, the necessary increase of taxation would not be very great. There are, however, obvious objections as well as advantages connected with any such project of feeding by authority, and the present vigour of voluntary effort in this direction is itself, we should imagine, a sign that the mechanical charity of law is efficiently represented by a kinder influence.

THE DINNER OF THE ROYAL LITERARY FUND.

THE dinner of the Royal Literary Fund is always the event of its kind in the year, and one of the great distinctions of an active public life is the honour of being invited to fill the chair. Hitherto in the long period of the existence of the Society, extending wellnigh through a century, this honour has been conferred on men of eminence of all the leading professions, with one solitary exception—that of medicine. Kings, Princes, Bishops, Prime Ministers, Men of Letters, Royal Academicians, Poets, and Lawyers of high degree have filled the post, but a member of our profession never. This year the Council of the Society has taken a new departure by inviting one of the stars of the medical firmament — Sir James Paget — to accept the office. We are delighted to be able to announce that Sir James has intimated his consent, and we al know that such consent means success. There is no public institution in the kingdom to which the representatives of physic could more usefully render aid than the Royal Literary Fund. Its benefits are dispensed with the most impartial judgment to those who in the struggles of the literary life fall into temporary distress; and with so much delicacy is the duty performed that, it is said, not a single instance is known in which the fact of the assistance rendered has ever been made public except by those who have been the recipients of the grant. We feel sure that a brilliant recognition of the claims of the Fund will be heartily accorded.

MENTAL AUTOMATISM.

OUR remarks in THE LANCET of last week on "Theatrical Tears," in which we endeavoured to show that in order to stir the higher emotions in his audience the actor must himself "feel" the emotion he is seeking to portray, receive a *quasi*-contradiction in a statement which has been made with regard to that veteran of the stage, the late Mr. Chippendale. It is recorded that in his eightieth year he played the part of Hardcastle in "She Stoops to Conquer" at Edinburgh, and that, notwithstanding that he performed in his best manner, a speech which he made subsequently showed that he was not even conscious of where he was playing. It need not be said that Mr. Chippendale had played this part hundreds of times, and that the repetition could have been little more than an automatic act. We all know the tale of the soldier who at the sound of the word "attention" halted in the erect position, and, bringing his hand to his side, dropped the dinner he was carrying in his hand. This is automatism of a simple kind, and, in point of fact, the response to "cues" by a highly trained veteran of the stage is scarcely more complicated, and we doubt not that many an old actor would repeat his part with accuracy and effect long after the power of mental origination had ceased. We have known an instance of an octogenarian playing whist with very fair skill and accuracy long after all memory for current events had absolutely ceased. Mr. Chippendale at the age of eighty played *old* Hardcastle in his best manner.

It must be admitted, however, that Hardcastle's emotions, amusing as they are, are all commonplace. We have very little belief that the higher emotions, as depicted in the great tragic characters, can be adequately displayed upon the stage unless the actor can keep his imagination more or less upon the stretch during the whole performance.

SMALL-POX AND VACCINATION IN LEICESTER.

THE report of the Committee of the Fever Hospital, presented by the Sanitary Committee to the Leicester Town Council, gives, on the authority of the medical officer of health, the particulars of the ten cases of small-pox which have been admitted into the hospital during the year, of which five remained under treatment on Dec. 31st. We may here remark that one more case of variola in an unvaccinated child has occurred since our report last week. No connexion could be traced with previous cases. The medical officer of health says: "The ten cases of small-pox have occurred in four separate localities. Seven came from a house in Gresham-street; one from Emerald-street, which was distinctly traced to infection from the preceding; one case was from a house just outside the borough boundary, off the Spinney-hill-road; the disease in this case was evidently contracted in Sheffield, where small-pox is at present epidemic. The last case was that of a man from Brandon-street; the origin of this could not be ascertained. Of the ten cases, eight were vaccinated and two unvaccinated. The vaccinated cases were all of a very slight character; seven were quite abortive attacks. The two unvaccinated cases were severe attacks, especially the one from Brandon-street. There has been vigilant observation maintained in connexion with all these cases, and the period of incubation having expired, it is not probable that any more cases will now be met with arising out of the foregoing.' The only lesson of the report is that small-pox is the same in Leicester and obeys the same laws as in other places. It does not spare the vaccinated, but in all the vaccinated the disease was slight. In the two unvaccinated patients the disease was severe. Half a loaf is better than no bread. One vaccination is infinitely better than none. Many people who have been only once vaccinated will contract the disease when exposed to it, though it will be in a much milder form than is natural to the unvaccinated. The only safety from attack to those over puberty, or even earlier, is in re-vaccination.

A NEW GASOGENOUS BACILLUS.

DURING the past year, M. Arloing has investigated the characters of a new bacillus having the property of generating gas within the tissues it attacks. M. Gayet noticed on puncturing the anterior chamber of the eye of a patient suffering from an injury that gas escaped as well as a rusty coloured fluid. This sanies was submitted to M. Arloing, and found not to contain the bacillus of gangrenous septicæmia—a gas-generating micro-organism. The new bacillus has a length of ·0025 to ·0060mm., occurs in isolated rods or in chains, and has no spores. It not only differs from the septic vibrio in morphology, but also in its evolution, developing in the shape of small tufts; in the peritoneum the forms of the bacilli are very short and never serpiginous. The new microbe does not act on albuminoids as well as hydrocarbons, but on the latter only. Inoculation of the fresh fluid only gave positive results in rats and guinea-pigs, rabbits being unaffected; whereas the septic bacillus evolves in the connective tissue of any domestic animal save the ox. The dried fluid loses its virulence. In order to restore it, it suffices to place the dried preparation in water acidulated with lactic acid—just as is required to restore the activity of the virus of symptomatic charbon. After this restoration it furnishes results on inoculation similar to those obtained from the fresh virus; but it has no effect on dogs. The bacillus may be grown in bouillon and gelatine both in the presence and absence of atmospheric air; it is a mixed vibrione. In vacuo it grows less luxuriantly than in the atmosphere. The septic bacillus is, on the contrary, essentially anaerobic. The new bacillus, though generating gas, does not appear to be very harmful to man; here again contrasting with its gasogenous colleague.

HOSPITAL SUNDAY IN LIVERPOOL.

FOR several years past the weather on the second Sunday in the year, the one selected for collections in Liverpool on behalf of the medical charities, has been most inclement. It was with great relief, therefore, that all interested in these charities welcomed the favourable weather of last Sunday, which was of such a nature as to furnish no excuse for not attending church or chapel. How far this circumstance will affect the amount collected is a matter which will be watched with keen interest. On Monday the treasurer received advices of £2676 having been paid into the bank to the credit of the fund, and it is very satisfactory to learn that the various sums collected show, in many instances, a decided increase over last year. The following sums may be taken as indicating the continued interest of the Liverpool public in this means of aiding the local medical charities, and also as examples to be followed elsewhere. Collected at Renshaw-street Unitarian Chapel, £538; Sefton Park Presbyterian Church, £470; Great George-street Chapel, £282; St. Andrew's Church, £147; Christ Church, Linnet-lane, £136; Chapel for the Blind, £130; Mount Pleasant Presbyterian Church, £116; All Hallows, £151: Canning-street Presbyterian Church, £107.

BOLOGNA UNIVERSITY: ITS EIGHTH CENTENARY.

THOSE who assisted at the celebration of the third centenary of Edinburgh University in the April of 1884 cannot have forgotten the hearty invitation held out to them by Count Saffi, who represented Bologna on the occasion. The Count, in the course of a most interesting retrospect of the rise and growth of academic life in Europe, pointed out that the seat of learning from which he had come had the best authenticated claims to be regarded as the primary *alma mater* of Europe, and, having reminded his auditors that its eighth centenary was little more than four years off, he intimated to them the gratification it would give the Senatus and professoriate of Bologna to see them as guests at the commemorative festivities. That informal invitation has now taken a definite shape. In the chaste Latinity for which the Bologna school has always been famous, it has framed an address to the various seats of learning throughout the world, inviting those of their members whom they may delegate to grace with their presence the august celebration. Having fixed the 12th of June next as the day of meeting, the address proceeds to set forth that, although the precise date when the University of Bologna arose has not been determined with chronological accuracy, yet it has always been the opinion of the learned, an opinion confirmed by the local annals, that at the close of the eleventh century Roman Law was publicly prælected upon in Bologna; that this professoriate was the cradle (*incunabula*) of the University; and that with the dispersal of the darkness of the so-called Middle Ages this cradle grew into an academic hall—the nursing mother of literature and the arts. "In order that with the more dignity" (so runs the address) "the memory of the old academic parent may be revived, the Senatus has decreed that the centenary festivities shall be celebrated by the largest attendance possible of professors, and also by the lustre of the brightest intellects,

not only of Italy, but of foreign nations. Accordingly, in name of the Senatus, we invite you—'men of light and leading'—to share in our festivities, and, represented by one or more of your number, to intervene at the same on the day appointed. We are in great hopes (*magna quidem in spe sumus*) that, true to your courteous traditions, and in consideration of the close relationship of study that binds us, you will graciously accept this invitation, and that, if we are so favoured, you will, as soon as you have fixed upon your deputy or deputies, impart to us the same in writing. That you and your University may reap the rich and lasting fruits of your studies, and that every good gift may be yours, is our earnest prayer." Then follows the date: *Idibus Decembr.* (13th December, 1887). Bologna, if only as the *alma mater* of a mighty pioneer in pathology like Morgagni, has signal claims on the recognition of the profession, and we doubt not that English medicine will be worthily represented side by side with that of other nations, on the august commemoration of the "eve of the Ides of June."

THE ROYAL COLLEGE OF PHYSICIANS AND POPULAR MEDICAL TEACHING.

WE learn that another physician has been found to occupy the post of President of a certain small Association whose late President resigned some weeks since after a correspondence with the Board of Censors of the Royal College of Physicians, in which the questionable professional position of the office he held was strongly brought before him. In withdrawing his name from the Association and its journal, we cannot doubt that that gentleman exercised a wise discretion, especially considering the mischievous nature of the work in which the Association and journal were employed—viz., the teaching of self-medication, and the advertising of the names of prominent members of the medical profession, which, we hope, was without their consent. Now, however, we learn that, notwithstanding all that has occurred, another physician has by some means or other been induced to accept the vacant presidency. A paragraph to this effect has been sent by the Association to the leading London papers. We have ourselves received one of these "circular notices," with a request for its publication, and we cannot doubt that through the Press Companies and other means it will eventually find its way to the majority of the newspapers in the United Kingdom. We feel certain that this esteemed member of our profession was unaware of this parade of his name before the great newspaper-reading public. At all events, he is known now far and wide as a F.R.C.P. Lond., F.R.S., and senior physician of a leading London hospital. We may add another distinction to this list of professional honours. He is also a member of the Board of Censors of his College, and must have been in his place when the matter connected with the late President of this Association was discussed, and must have been conversant with the correspondence which led to his immediate resignation. The explanation to his professional colleagues will probably be that the journal has been "severed" from the Association. This, we hear, has taken place, but we assert that such severance can be only in name, considering that one person was the promotor of both Association and journal, and that he is a trustee and the chairman of the executive committee of the Association, and the editor and sole registered proprietor of the journal which was promoted to be its organ. When we add that this gentleman is not a medical man, but an official on the Stock Exchange, we think that we have given unanswerable reasons why this respected physician should have hesitated to accept a post concerning the occupancy of which he will be sure to have to offer some explanation to his colleagues on the Censors' Board. We understand that a meeting of the whole body of Fellows of the College of Physicians is convened for a day near the end of the present month, to receive the report of the Board of Censors, and to pass such a resolution as will very strongly indicate their united opinion of the proceedings to which allusion has been made above. We trust that every Fellow of the College will at any inconvenience arrange to be present upon the occasion.

PROFESSOR KREMIANSKI'S ANILINE TREATMENT OF PHTHISIS.

A KIEFF ecclesiastical paper contains an account of the cure of consumption in a priest effected by means of Professor Kremianski's treatment—i.e., the inhalation of aniline, winter-green oil, eucalyptus oil, &c. The method has not been very fully explained, and is looked upon by the bulk of the profession in Russia with grave doubt. From Professor Kremianski's work on the subject, which is now before us, we gather that no definite rules can as yet be laid down for the choice or the degree of concentration of the drugs used, nothing but a laborious system of trials under careful medical supervision being sufficient to determine these points for each individual case. One matter he insists upon very strongly is that the inhaler used should have a sufficiently large outlet tube and mouthpiece. The diameter he recommends is seven-twelfths of an inch. He appears to be very far from supposing that his methods are suitable for all cases of phthisis, for he frankly confesses that many patients have not been benefited by them; but he has been able, he says, to arrest the disease in some cases where all ordinary methods of treatment had proved unavailing. A very small number of these successful cases are published, and in the accounts given some important details as to the treatment are omitted. He states, however, that he has numbers of other cases that he could publish, but refrains from doing so, as they would rest upon his evidence alone, and in the present sceptical state of the attitude of the profession towards him and his work he does not think it advisable to publish cases which cannot be verified by independent testimony. As far as we can gather, Professor Kremianski has retired not only from his Professorship of Medicine in the University of Kieff, but from practice generally, all he is doing being entirely gratuitous. He evidently has a high opinion of the importance of his "discovery," and has no doubt that, though it is despised now, it will ultimately be hailed as one of the most magnificent achievements of medical science in the latter part of this century.

TEA DRINKING AND NERVOUS DISORDERS.

TEA has a powerful action on the nervous system of some individuals. Dr. Bullard of Boston believes that it may produce a chronic poisoning of the nervous centres, shown in increased excitability, due partly to direct action of the alkaloid on the nervous matter, and also indirectly by the production of gastric derangement. Taken, therefore, too frequently, even in moderate doses, it places the nervous system in a condition of greater vulnerability to slight external influences, and favours the development of functional neuroses, or helps to render them permanent. Whilst there is no evidence to show that tea causes organic changes in the nervous tissues, yet, if such exist, tea may readily aggravate some of the symptoms. Tea may act as an important factor in the causation of neuralgia, hysteria, and allied affections. When taken constantly in large doses, dyspepsia usually supervenes before irreparable harm is done to the nervous system. In hemicrania, and possibly some other functional neuroses, there is probably a craving for some stimulant, and tea is better than other equally accessible articles, and so it happens that many sufferers from megrim are great tea-drinkers.

THE PARIS WATER SUPPLY.

SOME most ambitious schemes have been brought forward for the improvement, or rather the augmentation, of the Paris water supply. Actually Paris enjoys a supply of water which may be considered as one of the best in Europe, only its quantity is insufficient. Occasionally the waters of the Vannes and the Dhuis prove insufficient for the wants of the town. This naturally happens in dry seasons. The authorities, without giving any warning, then provide water derived from the Seine. Consequently, and about a fortnight after this change, there is a great increase in the number of cases of typhoid fever admitted into the hospitals. It is therefore absolutely necessary to augment the quantity of pure water, and for this purpose it is proposed to bring water all the way from Switzerland to Paris. According to the first scheme of this description, the water is to be taken from the lake of Geneva, and the works are estimated to cost £24,000,000. But M. G. Ritter has brought forward a rival scheme, and urges that the lake of Neufchâtel is much more suitable for this purpose. The water would come direct from the glaciers, and in summer would be particularly cold and plentiful. The works also would be less expensive, and are estimated at £12,400,000. For this cost, a supply of 600 litres per head of the population would be secured. Even if the population increased to five millions, there would be 350 litres per day per person. It seems, however, that while these vast projects are under discussion, hundreds of Parisians are allowed to die from typhoid fever, when at least the more intelligent sections of the population might be saved with a mere nominal outlay. For this it would suffice that printed notices should be sent round whenever the Seine water was substituted for the purer water supply. The inhabitants could thus be warned and told to boil their drinking water. This would happen once or twice in the year for one or two weeks, and if during that time people did not take sufficient precautions, they could not as at present complain that they were ignorant of the dangers incurred. As it is, life in Paris is a mere lottery. It is impossible for the ordinary inhabitant to know when, instead of the excellent water supply usually provided, he may not receive semi-sewage from the Seine. To talk of bringing Swiss lake-water to Paris does not cure this scandalous evil. Even if some such vast scheme were adopted, it would be difficult to obtain the necessary funds, and it would take at least five or six years to carry out. Meanwhile, are the inhabitants and the visitors to remain in ignorance as to the time and place when and where periodically a more or less poisonous water is supplied for their home consumption?

ATROCIOUS ACTION AGAINST A MEDICAL MAN IN IRELAND.

FALSE charges of an infamous character against medical men are too common. But one of a singularly audacious and mendacious nature has met with signal exposure and retribution in Ireland in an action against Dr. Henry Davy of Terenure, co. Dublin, to recover damages (£1000) for alleged criminal connexion with the plaintiff's wife. Three witnesses for the plaintiff in succession, respectively his daughter-in-law, servant, and daughter, said they had been offered money to swear falsely against the defendant, and had not a word of evidence to give to that effect. The daughter said that her mother had kept the family for years, and her father was a ruffian and villain, who had always treated her mother and family in a shameful manner. Dr. Smyly, counsel for the plaintiff, who began by saying that the case was one for substantial damages, said, amid the laughter of the Court, after these three witnesses had been heard, that he had no more witnesses to call. At this point the jury stopped the case. The Recorder said in all his experience he never heard a more atrocious or infamous case, or a more scandalous attempt to ruin a wife and to obtain money. He said that not the slightest stain could rest on Dr. Davy's character. He ended by making an order that the Crown Solicitor should prosecute the plaintiff for perjury. It is hard to be the victim in such a case, but Dr. Davy will have the sympathy of the whole profession and of all decent people. And he will have the satisfaction of knowing at least that the trial, while leaving his character intact, has disclosed the infamy of his accuser, and given the public an additional instance of the stuff of which actions for "substantial damages" against medical men are often made up.

DESTRUCTIVE ACTION OF BOILING WATER ON TYPHOID BACILLI.

IN order to test the destructive power of boiling water on typhoid bacilli, Dr. Vilchur of St. Petersburg made a number of pure cultures in broth, keeping them in a thermostat for two days at a temperature of about 33°C., and then mixed them with known proportions of boiling water, immediately afterwards sowing the mixtures in jelly. The results showed that, when the volume of boiling water equalled that of the culture, the bacilli were partially but not wholly destroyed. When double the volume of boiling water was used, the bacilli were all killed. From experiments with typhoid stools, he found that all the bacilli, however numerous, were invariably destroyed by the addition of a volume of boiling water equal to four times that of the stool. In this way he suggests it will be easy to disinfect with certainty all the dejections of typhoid patients.

UNIVERSITY OF LONDON.

THE Executive Committee appointed to carry out the wishes of Convocation of the University of London, in respect of the celebration of its jubilee, in conjunction with that of Her Majesty's reign, have commissioned J. E. Boehm, Esq., R.A., to execute a statue of the Queen in Carrara marble, which will be placed in the hall of the University as a memorial of the events. It is hoped that the statue will be completed in sufficient time to allow of some public inauguration on its presentation to the University at a date convenient to members of Convocation.

THE DENTISTS ACT.

MR. FREDERICK W. BRADLEY, of Wisbech, was on Tuesday last fined £5 and costs for having contravened the Dentists Act. It was stated that he has heretofore evaded the Act by not describing himself in his advertisements &c. as a dentist; but it being brought forward in evidence that he called himself a dentist to patients consulting him, the Court decided in favour of the prosecution instituted by the British Dental Association. The bench, however, consented to state a case for the Divisional Court. It is understood that the above is a test case, and the first of a series of prosecutions throughout the country.

CARCINOMA OF THE LARYNX IN DIFFERENT COUNTRIES.

M. MOLLIÈRE of Lyons thinks that carcinoma of the larynx must be much more common in Germany and Italy than in France and England, for while he himself, though he sees annually some 7000 surgical patients, has never had a case suitable for extirpation of the larynx, and this operation is known to be a very uncommon one in France and in England, no less than 76 cases were mentioned at the Dresden Congress, and 101 operations are referred to in the Italian "Archives of Laryngology."

COMPULSORY NOTIFICATION AND ITS USES.

THE Corporation of Salford have taken an important step in connexion with the notification of infectious diseases. They have instructed Dr. Tatham, their medical officer of health, to communicate with the sanitary authorities of all towns where the system of notification is in force, and to ask them, especially in view of the alarming spread of small-pox, to send him a weekly notice of all cases of infectious disease that may be reported in their several districts, and he, in his turn, begins by sending them a list of all such cases as have been reported in Salford. The step taken will probably do more than anything else to clear up the doubt which has existed in some minds, whether sanitary authorities are prepared to utilise the information which they receive for the benefit of others as well as for themselves. If all the notification towns respond properly to this appeal, there will be a fairly strong case for urging the central authority itself to become the medium through which the information may be diffused. We shall look to Salford for further news as to the results of this effort which has been inaugurated by Dr. Tatham.

THE NAVAL HOSPITAL AT CONSTANTINOPLE.

ACCORDING to Dr. Max Breitung, who has been shown over the Turkish Naval Hospital in Constantinople, the building and its appointments form quite a model institution, of which Berlin, Vienna, or Munich might be proud, while the site of course is one which no other city in Europe can equal for beauty. The collection of instruments and of antiseptic dressings is very large and well selected, and the neatness of the bandaging is admirable; indeed, the precision of the reverses which Dr. Max Breitung saw would, he says, have gained the approbation of the most particular of German surgical professors. In a newly built pavilion the beds were decorated with richly gilt ornaments, the linen was of snowy whiteness, and everything was so luxurious that he was tempted to ask whether this ward was intended for the reception of Royalty. Special and excellently arranged barrack and tent accommodation is provided for epidemics, and the hygienic arrangements all through leave nothing to be desired.

FEVER IN LONDON.

THE number of patients admitted into the hospitals of the Metropolitan Asylums Board during the week ending Jan. 6th amounted to 185, of whom 154 suffered from scarlet fever, 26 from enteric fever, 4 from typhus fever, and 1 from small-pox. The case of small-pox was removed from Mile-end; and the patients suffering from typhus fever from Bethnal-green, Camberwell, Greenwich, and Southwark; the 26 cases of enteric fever were received from thirteen different districts. The total number of empty beds in the hospitals of the Managers on Monday, Jan. 9th, was 693, the London hospitals on that day containing 2123 fever patients, of whom 1953 were suffering from scarlet fever, 155 from enteric fever, 3 from typhus fever, and 13 from other diseases.

SLOW STARVATION.

DR. WATKINS, sanitary inspector of the Louisiana State Board of Health, has issued a medical report of the condition of the inmates of the New Orleans prison. It appears from this report that a number of cases of acute dropsy of the body generally were observed, and that this was due to chronic starvation coupled with confinement. The prison diet consists of a piece of bread and a pint of tea for breakfast, and one meal besides. The latter is made up of soup with the meat boiled in it, and bread. The meat is said to have been condemned several times by the resident surgeon. It was supplied by contract at five cents and a half per pound. No mention is made of any vegetable allowance. There seems little doubt that the dropsy in question was attributable mainly to the diet. We trust that Western America is too far advanced in civilisation to allow such scandals to go unchallenged, and, if true, to permit their continuance.

LORD GRIMTHORPE ON HOMŒOPATHY AND BONE-SETTERS.

IT is curious to see such a clever man as Lord Grimthorpe continuing to defend an absurd principle, in a somewhat laboured and tedious letter, after the leading homœopath of London, without whom homœopathic practice would collapse, has practically admitted its failure by postulating the use of the very opposite one. It remains to be seen how long *The Times* and its readers will care for such a fruitless discussion. Quite of a piece is Lord Grimthorpe's admiration of bone-setters, of whose awful blunders and ignorance we do not hear a word.

BACTERIOLOGY AT THE CAPE.

As evidence of the widespread and intelligent interest now being taken in bacteriology, we are pleased to find in the columns of the *Cape Times* (Nov. 25th) a *verbatim* report of a paper read before the South African Philosophical Society by Dr. J. A. Ross, entitled "Notes on Bacteria in relation to Public Health." Dr. Ross pointed out the distinction between non-pathogenic and pathogenic forms, and very lucidly enunciated the leading principles of the vital action of micro-organisms with regard to mankind. But perhaps the most useful part of his paper was that in which he urged the establishment of a bacteriological laboratory for the study of the subject, with especial reference to protective vaccination of animals. Meanwhile he promised his aid to any investigations into the nature of epidemic or infectious disease in flocks; so that we hope that a new centre of scientific inquiry will be thus established.

SEWAGE PURIFICATION.

A METHOD of purifying sewage has been invented by Mr. William Webster, F.C.S. He proposes to produce a current of electricity either from cells or from a dynamo, and to pass it through sewage, the transmission being effected through metallic electrodes. The action of the electric current serves to carry suspended particles to the top of the fluid, whither they are borne by gases which are generated; if the liquid be agitated, they are freed from the gases and then fall as a precipitate to the bottom. By this means it is claimed that not only all the solids in suspension but the greater part of the matters in solution are removed, and it is estimated that the whole of the London sewage could be thus treated at a cost of £25,000 per annum.

THE PUBLIC VACCINATOR FOR CARDIFF.

WE observe with much satisfaction that the guardians of Cardiff have reconsidered their previous decision to terminate Mr. Horder's contract of public vaccinator for Cardiff. They have, instead, adopted a resolution which requires Mr. Horder to make his supplies of lymph more available for general use, and we trust this will terminate the incident. But the meeting which has just been held confirms the impression created in our minds by the previous meeting, that a public officer was exposed to the risk of losing his appointment for very insufficient reasons. We are, indeed, astonished that the offence of which he was accused, even if the accusations were well founded, should have been held to deserve a punishment of this severity. But the matter is now

terminated, and we trust that no future event will tend to interrupt the cordial feelings which should exist between the authority and its officer.

THE CROWN PRINCE OF GERMANY.

THE latest advices from San Remo convey the gratifying intelligence that the improvement in the condition of the throat of His Imperial Highness is continued. The general health is very satisfactory, while the voice is strong and of good quality.

NEW FEVER HOSPITAL FOR SALFORD.

THE General Health Committee of the Corporation of Salford have issued invitations to architects who have had experience in the erection of hospitals to make application for the construction of a new fever hospital to contain 160 beds. The committee will first select an architect, and then consult with him and take other measures in concert with him towards the erection of the needed buildings.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—The charge of the Second Medical Clinic being now vacant, has been temporarily made over by the Professorial Senate to Dr. Angyan, *Docent*. Great excitement prevails as to the physician who is to be appointed permanently. The ultimate choice does not rest with the professors, who, it is understood, at once selected Dr. S. Purjesz, Professor of Special Pathology and Therapeutics in Klausenburg. Unfortunately, however, the whole point appears to turn on the religion of the candidate; and that of Professor Purjesz is said to destroy all hope of his being appointed. The other two names mentioned are Dr. J. Bókai, Professor of Diseases of Children, and Dr. C. Kétly, Extraordinary Professor of Therapeutics. These two candidates, the former of whom is a Protestant, the latter a Roman Catholic, are prosecuting their candidature most vigorously, chiefly on religious grounds. It is said that even the Court has been interested, and of course the clergy of both religions are taking up the unseemly struggle rather warmly.

Lisbon.—Senhor José Antonio de Arante has been appointed Director of the Medical School.

Vienna.—Dr. W. Czermak of Graz has qualified as *privat-docent* in Ophthalmology.

MAJOR HECTOR TULLOCH, R.E., has been appointed Chief Engineer Inspector to the Local Government Board, in succession to Sir Robert Rawlinson, K.C.B. Major Tulloch, besides having followed a distinguished career as military engineer, is known for some valuable reports on works of civil engineering, including one on the Water Supply of Bombay. He has also for many years been a member of the engineering staff of the Local Government Board.

MR. WYNTER BLYTH, reporting to the Marylebone Vestry on the health of that parish during November, states that during the week ending the 26th only 1·03 hour of sunshine was registered; and he adds that during the same week only twelve minutes of sunshine were registered at the Royal Observatory, Greenwich. The week was dark, with thick fogs, and rain on three days.

WE regret to record the death, at the age of seventy-eight years, of Mr. John Brownfield of Norwich. The deceased became a member of the Royal College of Surgeons in 1834, and a Licentiate of the Apothecaries' Society in 1836, since which time, with the exception of the last few months, he has actively pursued the practice of his profession in Norwich.

THE death is announced, at the age of eighty-six years, of Mr. Edward Bradford, F.R.C.S., F.L.S., Deputy Inspector-General of Hospitals and Honorary Surgeon to the Queen. The deceased entered the medical staff of the army in 1826; in 1828 he became Assistant Surgeon, in 1841 Surgeon, Surgeon-Major in 1852, and Honorary Deputy Inspector-General in 1858, in which year he was placed on the half-pay list. In the following year, 1859, he was appointed Honorary Surgeon to the Queen.

DR. PAUL GIBIER, who has been deputed by the French Government to study the question of the bacteriology of yellow fever, has arrived in Cuba.

AN International Exhibition of Hygiene is to be held this year at Ostend, from June 1st to October 1st.

Pharmacology and Therapeutics.

EHRENDORFER'S PENCILS OF IODOFORM.

THE iodoform pencils or bougies prepared by Philip Harris and Co., Birmingham, according to Ehrendorfer's prescription in the *Archiv für Gynäkologie* some few years ago (the English equivalent of which is two drachms and a half of iodoform, and fifteen grains each of gum, glycerine, and starch, to make one bougie), have been known to accoucheurs since their introduction, but deserve to be better known to the general medical public. We have used them for some years, and with great satisfaction. If well prepared they take three or four days to melt, irrigating the genital passages with a constant mild stream of iodoform. After interference with the uterine cavity, and after this is washed out with an antiseptic, one of these bougies is introduced into the uterine cavity and left, or it may be introduced simply into the vagina in cases of ruptured perineum. Smaller bougies in the same proportions are useful in cases of interference with the unenlarged uterine cavity. The advertisement of Messrs. Harris should be altered by the omission of the word "only." When these bougies or pencils have been before the world some years, and their composition was declared by their inventor at the time of their introduction, it is absurd to claim a monopoly of manufacture. As a matter of fact, they are to be had at several places in London. The specimens sent seem well prepared.

CREOLIN IN CYSTITIS.

In a very persistent case of cystitis occurring in a middle-aged woman where the pain was so constant that the patient was generally obliged to keep her bed, and where the urine was offensive, brownish, and thick, depositing a third of its volume of pus, blood, and phosphates, after a large number of different kinds of treatment had been employed by various medical men without much result, the best application appearing to be injections of corrosive sublimate in very weak solutions, Dr. Jefsner of Stolp washed out the bladder with a ¼ per cent. solution of creolin. This caused a burning sensation for a few minutes, after which it passed off. The next day the patient felt and looked quite a different woman, the pain in the bladder had been less than for a long period previously, and the urine when drawn with the catheter was scarcely offensive at all, and appeared quite clear, depositing after a time only a small quantity of phosphate without any admixture of pus- or blood-corpuscles. The washing out of the bladder was repeated daily, and by this means the improvement was maintained. It would appear therefore that in creolin we have a deodoriser and a hæmostatic, as well as a means of improving the character of the secretion from the surface of mucous membranes.

HYDRATE OF AMYLENE AS A HYPNOTIC.

Hydrate of amylene has been employed by Dr. Georg Lehmann of Sonnenstein as a hypnotic in mental cases with satisfactory results. The doses he used varied from fifteen grains to about seventy-five grains; it was prescribed in the form of an emulsion with syrup. He gave 149 doses of the

remedy to twenty-six female lunatics (maniacal, melancholic, &c.). It succeeded well 124 times, partially twenty times, and was entirely useless only five times. Disagreeable symptoms were never produced, except in two cases in which there was some nausea. Hydrate of amylene has not a pleasant taste or smell, being somewhat like paraldehyde, but, according to Dr. Lehmann's experience, it acts more powerfully and is less likely to cause the patient's breath to smell than paraldehyde.

OIL OF WINTERGREEN.

Oil of wintergreen is identical with a volatile oil obtained by distilling the bark of Betula lenta, the sweet birch, or black birch, or cherry birch, or mountain mahogany of the middle and northern States of Canada, and also with the oil derived by distillation with water from Spiræa ulmaria, or meadow sweet, the principal agent in all being methyl salicylate. Like salicylates, these oils possess the property of causing ringing noises in the ears when a sufficient dose is given, which varies for different individuals. Ten minims from three to six times a day is the usual quantity administered, either suspended in simple or syrupy water or cod-liver oil. These oils are not so useful in acute rheumatism as in the milder attacks of chronic rheumatism or rheumatic gout. Dr. Squibb strongly recommends them in the *Ephemeris*, vol. iii., No. 2.

IODINE TRICHLORIDE.

This is freely soluble in water; it is a stronger germicide than carbolic acid, and approaches to corrosive sublimate, but is not nearly as poisonous. Langenbuch recommends an aqueous solution of 1 in 1000 or 1500 for disinfection of the hands, wounds, and instruments; the slight discolouration can be easily removed from the hands by means of ammonia or sodium thio-sulphate solution. He recommends a solution of 1 in 1200 as an injection for gonorrhœa, or as an internal remedy in dyspepsia due to bacteria, the dose to be a teaspoonful every two hours.

IODINE AND COCAINE IN WHOOPING-COUGH.

M. Labbé, besides mopping the larynx and pharynx with a solution (? 5 per cent.) of cocaine, employs also a weak solution of iodine by charging a small tampon of cotton wool therewith and freely mopping the parts about the upper opening of the larynx. The tincture of iodine may be diluted from two to five times, and applied according to the frequency of the paroxysms.

IODOFORM AND CAMPHOR IN SMALL-POX.

Forty grammes of pure vaseline, two of iodoform in fine powder, and four of powdered camphor should be worked together into an ointment, which is lightly rubbed into all parts of the affected skin. This ointment, it is claimed, acts as an anæsthetic and antiseptic, besides preventing pitting.

GUAIACOL.

The principal constituent of creasote is guaiacol, and Sahli has obtained as good results by the use of guaiacol as by genuine beech-tar creasote.

OXYNAPHTHOIC ACID.

This acid is a powerful antiseptic, retarding putrefaction of the blood and urine even more effectively than salicylic acid, with which it agrees closely in chemical composition.

THE MICROBES OF VACCINIA.

THE interest excited by the recent investigations of Professor Crookshank and their bearing upon vaccinia has naturally led to an inquiry as to the extent of our knowledge hitherto obtained with respect to the specific microbes of that disease. It is remarkable that, although the vaccine virus is so accessible for investigation, and although it was long since shown by Chauveau, and later by Sanderson, that its special properties were associated with its particulate ingredients, and not with the fluid element of the lymph, the demonstration of the actual microbe proved to possess these properties should have been so rarely made, and never as yet, perhaps, satisfactorily proved. MM. Cornil and Babes,[1] indeed, point out, in reference particularly to such diseases as variola, vaccinia, and scarlet fever, that "the eruptive fevers, which of all diseases seem at first sight to be the most plainly and certainly infective, are far from being thoroughly known in respect to the share taken by bacteria in their etiology. All the knowledge we possess upon this point is confined within very narrow limits." Hence it is that the vexed question of the identity or non-identity of the vaccinal and variolous viruses still lacks the final test of bacteriology. Nevertheless, it may be useful at this juncture briefly to summarise the chief contributions to the subject, more especially of vaccinia, since more, perhaps, has been done with regard to it than with variola. The question of their identity may surely be left for determination until the nature of the vaccine virus is established. A further interest attaches to this latter inquiry in the munificent award offered in 1883 by the Grocers' Company, and repeated last year, of £1000, for the discovery of a "method by which the vaccine contagium may be cultivated apart from the animal body, in some medium or media not otherwise zymotic; the method to be such that the contagium may by means of it be multiplied to an indefinite extent in successive quantities, and that the product of any number of such generations shall (so far as can within the time be tested) prove itself of identical potency with standard vaccine lymph."

Although Keber, in 1868, was the first to demonstrate the presence of micrococci in vaccine lymph, it was Cohn[2] who, in 1872, studied the subject most thoroughly, and who discriminated various forms of micrococci, both in vaccine and in variolous lymph. Klebs[3] also described micrococci, which, like Cohn, he found mostly grouped in tetrads, in vaccine lymph. In this country credit must be given to Mr. Rickman Godlee for some of the earliest investigations upon this subject. In 1877[4] Mr. Godlee brought before the Pathological Society of London his results of artificial cultivation of vaccine lymph. The culture media he used for his inoculations were milk, turnip infusion, urine, and hydrocele fluid; and his experiments were conducted with all due care to prevent contamination. He found that the resulting growths of micrococci yielded organisms varying in size with the nature of the fluid used. The largest forms were those which grew in turnip infusion. He was, however, forced to conclude that these microbes were incapable of originating vaccinia, for experimental vaccinations with the hydrocele fluid cultures yielded no results.

Little seems to have been done in this direction for some years; and what was done, even in the direction of obtaining pure cultivations, mostly ended in failure. In 1884, Quist[5] claimed to have discovered a medium whereby the vaccine virus could be artificially multiplied, but Cornil and Babes aver that this method (which if substantiated would have entitled him to the Grocers' prize) does not yield pure cultures. The medium employed by Quist consisted in ox blood, serum, glycerine, distilled water, and alkali, which after inoculation with vaccine lymph, yielded a delicate growth of very minute micrococci, with which he produced successful vaccine vesicles in children, and in one case at least with protection from a second vaccination. Cornil and Babes[6] also give a summary of researches by Voigt, who, unlike Quist, used gelatine as the culture medium. His vaccine cultivations yielded three forms of bacteria. The one formed greyish colonies, which did not liquefy the gelatine, and consisted of diplococci, or, in older cultures, streptococci. Immunity from cow-pox was conferred by inoculating the calf with this microbe; the inoculation being followed in five days by nodules, which later became covered with crusts. From the vaccine pustule thus produced in one instance Voigt obtained a pure culture which yielded a powerful vaccine, but he found that these artificial cultures greatly diminished in virulence on keeping; he thereby again failed to solve the great problem of artificial vaccine. The other bacterial organisms found by Voigt in vaccine lymph consisted—the one of large cocci, which formed a granular greenish culture, liquefying gelatine; the other of small cocci, giving a yellowish-grey culture, also liquefying gelatine. But neither of these forms produced any effect when inoculated.

A more recent study still is that of Garré,[7] who obtained pure cultures by placing portions of skin excised from

[1] Les Bactéries, second ed., 1887, p. 618.

[2] Beiträge, 1872.

[3] See reference in his latest work, Allg. Pathologie, 1887, p. 339.

[4] Path. Soc. Trans., vol. xxviii., p. 397.

[5] Berl. Klin. Woch., 1884, No. 52. See also Cornil and Babes, loc. cit.

[6] Loc. cit., p. 624.

[7] Deutsch. Med. Woch., 1887, Nos. 12 and 13.

beneath the vaccine pustules, on the ground that the lymphatics here contain the vaccine cocci in a pure state. He describes these organisms as being about one-half the size of staphylococci, and, like Cohn and others, he found them mostly grouped in pairs and tetrads. The contents of the pustules themselves did not yield pure but mixed cultures. Garré inoculated calves with the pure cultures with successful result. He also found the same cocci in the humanised virus, and concludes that animal vaccine contains a variety of micrococcus having distinctive culture characters, and that it is best obtained in a pure state from the deep layers of the skin; also that, when calves are vaccinated with these cultures, nodules which become pustules are formed, these pustules yielding a lymph capable of producing a normal vaccine pustule by vaccination in man or animal, and of conferring immunity from subsequent vaccination. Curiously, however, no such result followed the direct inoculation of the cultures in man.

A still more interesting study is that published last year by Dr. Neil Carmichael in a paper read before the Philosophical Society of Glasgow.[8] It is entitled "An Experimental Research on the Artificial Cultivation of Vaccine Lymph, with Observations on the Nature of Vaccine and the Immunity produced by Vaccinia." He states that micrococci, often in chains, are invariably present in vaccine lymph, whether this be humanised or from the calf, and that no other organisms are present. He infers that these streptococci are the active agency of the virus, because (1) they are invariably present in vaccine lymph, are uniform in size and other characters, and abound most in the purest and most active lymph; (2) they are the only living organisms found in vaccine lymph; (3) they multiply enormously when the lymph is planted on the calf or human subject in the vaccinated tissues and subsequently in the vesicles, and this active proliferation is coincident with the active development of vaccinia; and (4), from their resemblance to other specific micro-organisms—for example, those of pneumonia and erysipelas. The small-pox virus contains similar if not identical organisms. Dr. Carmichael has for ten years past been devoting attention to the question of the production of artificial lymph by cultivation, and has done more than any other inquirer in this direction. By adopting all the approved precautions, Dr. Carmichael succeeded in isolating these organisms from vaccine lymph, and in cultivating them. He found that for primary culture the best media were potatoes, or veal soup with peptone, thickened with agar; and, for secondary cultivations, veal soup with cloth or marble. The temperature of 70° to 80° F. was found to be suitable for primary cultivations, that of 90° to 98° F. for secondary. He also tried the effects of air and gases on their growth, and found that in carbonic acid their growth is active, but not more so than in air; they grow in oxygen, but not luxuriantly, and do not grow in nitrogen; they grow in the dark as well as in light. He obtained better cultures from fresh humanised lymph than from calf lymph or vaccine scabs, both of which sources were more liable to contamination. On the surface of potatoes and on gelatine the growth forms a smooth, irregularly marginated mass of pearly white, salmon, orange, or almost red colour. It does not liquefy gelatine. The micrococci composing it occur in masses and chains, are about $\frac{1}{25000}$ in. in diameter, and indistinguishable from the micrococci of vaccine lymph. Secondary cultivations could be obtained by transference to other soils, and contaminations were readily detected by the naked eye as well as the microscopical characters of the growth. Dr. Carmichael commenced in 1878 to test the vaccinating power of these organisms. He repeatedly vaccinated himself with these products without any effect locally or otherwise; but this was hardly surprising seeing that he had been so often revaccinated. But calves vaccinated with these products generally yielded no result. In some papules were formed, which subsequently became vesicular, but did not follow the normal course of vaccinia. Four children were vaccinated from fluid of such vesicles without result. He then proceeded to vaccinate children with primary and secondary cultivations, and found that out of a large number most failed entirely to produce any results, a considerable number produced imperfect vesicles, and some produced perfectly normal vaccinia. Those on whom no result was produced, or who had imperfect vesicles, were subsequently vaccinated successfully with ordinary vaccine lymph. In fact, since his first successful result (Dec. 1885), out of ninety-six children thus vaccinated only ten were entirely successful. We must refer to the paper for his further arguments explanatory of so large a proportion of failures; but it may be worth while to reproduce the conclusions which he enumerates as the outcome of his investigation: "1. We have succeeded in cultivating the vaccine contagium in the form of a crop of micrococci, the progeny of the micrococci of ordinary vaccine lymph. 2. We have found that its failure in 90 per cent. of the cases proves it to be of lessened infective power, and for purposes of general vaccination entirely unsuitable. It is of lessened infective power, but not necessarily, when it does succeed, of lessened protective power. It is not, I think, a truly attenuated lymph, because when it does succeed its success is perfect. It is lymph which, by naturalisation in a new soil, has become less infective—that is to say, less ready to germinate than the old. 3. We have succeeded in producing vaccinia in a number of children (10 per cent. of the cases) apparently susceptible, in a special degree, by inoculation of these cultures. 4. These occasional successes serve as a fresh starting point for the renewal of lymph, enabling us, not certainly to obtain a sufficient supply for general purposes of inoculation, but yet enabling us, in a soil not otherwise zymotic, to cultivate the contagium of vaccine lymph, and so to secure a fresh untainted removal of our lymph." We have drawn attention to this paper by Dr. Carmichael because we feel that it is one which might easily be overlooked in the Proceedings of a general scientific and literary society; moreover, we feel with him that the researches he describes may perhaps prove to be stepping-stones for further inquiry, leading to more sure and certain results.

In a work entitled "Vaccinia and Variola," published quite recently,[9] Dr. Buist of Edinburgh goes fully into the whole question of the nature of the virus in these diseases and the problem of immunity. The book abounds in bacteriological studies, which were carried on by the author and Dr. Hare in Professor Chiene's laboratory; but it has the disadvantage of being difficult to analyse; and if in what follows we have failed fully to grasp the real meaning of the results arrived at by Dr. Buist, we must plead in extenuation the manner in which the facts are presented. That it is a valuable contribution to the subject cannot be gainsaid, but it shows how the matter bristles with difficulties and needs a more concise and clear exposition of the results to be really of service. In respect to the question with which we are now mainly concerned, the author says (chap. vii.): "In order to establish the assertion that bacteria are the cause of variola and vaccinia it is absolutely necessary to prove—1. That bacteria are present in these diseases without exception. 2. That they exist in sufficient number in both to account for the symptoms. 3. That they possess a well-marked and easily recognisable form. 4. That a specific significance can be attributed to this form of bacterium." Before describing the microbes present in vaccine and variolous lymph Dr. Buist details the results of cultivation experiments with these fluids. Trials were made with various media, and preference given to Koch's nutrient gelatine as furnishing the best results. The cultures in most instances underwent a remarkable change of colour with their development. For although at first they were nearly all white, sooner or later, and often as early as the eighth day, they assumed yellow, orange, or brown tints, entirely or mingled with white. These colours were duller and browner in agar-agar than in the gelatine cultures; they appeared in secondary as well as in primary cultivations, in variolous as well as in vaccine inoculations. (In some of the variolous inoculations no result followed; in others the gelatine was liquefied; but in others, again, the character of the growth clearly resembled that obtained from vaccine.) It would appear that these colour differences did not indicate any contamination of the virus, but that they were allied to the stage of development of the micrococci concerned, varying also with the source whence the cultures were derived, and to some extent with the media employed. Dr. Buist describes and figures micrococci of all sizes, mostly grouped in tetrads, the larger forms resembling sarcina, obtained from lymph and from the various cultures, varieties which, he points out, simulate every one of the five genera of micrococci described by Zopf; but he considers that the larger forms are simply ulterior stages in development of the smaller. He, indeed, introduces

[8] Proc. Philos. Soc. Glasgow, 1886-87, p. 389.

[9] Vaccinia and Variola: a Study of their Life History. By John B. Buist, M.D., F.R.S.E. London: J. and A. Churchill. 1887.

a new conception of the microbes concerned based upon these variations in their size. In point of fact, the smallest, measuring only 0·15μ to 0·5μ, which are to be found in *clear* lymph, he considers to be the *spores* of micrococci, of which the adult and larger forms (1μ to 1·2μ) occur in *opaque* lymph. Further, he notes that, whereas clear lymph is alkaline, opaque lymph is acid in reaction, and that although the latter is more energetic in its local action it is less valuable as a protective. The opaque lymph is, as Dr. Buist puts it, a "natural cultivation," and he concurs in the propriety of discarding its use for dried clear lymph, which retains the microbe in its spore-stage. At the same time, he has proved that the opacity which lymph undergoes on keeping is not due to the presence of impurities; although, by the way, he shows that commercial vaccine tubes contain germinal matter, and should be sterilised before use. Another new and suggestive thought is that the immunity conferred by vaccination depends upon a process allied to fermentation; and this leads him to direct especial attention to some larger organic bodies resembling torula that are to be found in almost all specimens of lymph, especially the opaque. These bodies are very fragile, but stain readily, and their torula-like form suggests the name "saccharomyces vaccinia." It is a new idea that Dr. Buist propounds with respect to these bodies—viz., that they represent the resting stage of the vaccine organism, and that they are full of the spores which he describes in the clear lymph. He has extended his inquiry, therefore, into the effects produced by the injection of yeast into the blood; and describes certain local and constitutional (fever &c.) effects which suggest that a "fermentation" occurs in the blood, and that ordinary yeast has a certain pathogenic action. It is even more novel to find that in the monkey, but not in the calf, the change induced in the blood by the action of yeast seemed to have a certain modifying or quasi-protective influence against the effects of subsequent vaccination or variolation. Thus Dr. Buist has opened up new lines of inquiry, and has attempted to grapple with the question of protective inoculation from a fresh aspect. That he has solved the problem of artificial vaccination he would be the last to admit; but we trust the results he has so far obtained may lead him to pursue his investigations further, with the hope that more light will be thrown upon a subject which seems to become more complex and difficult the more it is studied. Moreover, should his results respecting the effects of cultivation upon the microbe and the relation between the "saccharomycetes" and the micrococcus be confirmed, he will have introduced a new order of ideas into bacteriology, which may work a revolution in the classification of the microphytes concerned.

We have thus carried our brief survey of this subject of the nature of the vaccine virus to the point reached by present-day research. It would seem as if the problem which the bacteriologist has before him is far less simple than might be thought; but knowing how much has been done in this field, and also knowing how much there may still be effected, we cannot doubt but that the problem will one day be solved, and that "vaccination" will be explained and practised with far clearer knowledge of its meaning and mode of operation than we can as yet conceive.

THE REGISTRAR GENERAL'S ANNUAL REPORT.

AMONG the innumerable blue-books issuing year by year from the various public departments, there are few that for varied and general interest can compare with the Registrar-General's Annual Report. The Registrar-General deals specially with marriages, births, and deaths, but his reports also furnish (on account of their relation to one or other of these subjects) valuable information bearing upon emigration, pauperism, the condition of trade and commerce, the prices of the necessaries of life, the numerical distribution of religious denominations, and education, to say nothing of the direct relation of his mortality statistics with the state of public health.

During the last days of 1887 was issued the 49th of these Annual Reports, dealing with what our neighbours on the other side of the Channel would conveniently call the demography of 1886. The volume undoubtedly contains invaluable evidence of the material, physical, and sanitary condition of our people during the year under notice. We note with satisfaction that the date of the appearance of this report is earlier than the date of any previous report; it appeared before the close of the year succeeding that to which the report relates, which never occurred before. It may be hoped, however, that even this date may in future be anticipated. If we are not mistaken, the Irish report for 1886 was issued some months since, while, on the other hand, the report for 1884 was the last issued by the Registrar-General for Scotland.

As regards the facts relating to the rates of marriages, births, and deaths in 1886, interest therein has been to a great extent discounted by the more or less provisional figures that have been published from time to time in the Quarterly Returns, which differ but slightly from the revised figures given in the report now to hand. We know that the marriage-rate in 1886 was the lowest recorded in any year since the commencement of civil registration, but we are now told that the fall in the marriage-rate continues to be coincident with the "fall in the value per head of British exports," and also with a continued fall in the price of wheat. Dr. Farr used to call attention to the coincident rise of the marriage-rate with a fall in the price of wheat; but in recent years the phenomenal fall in the price of wheat would appear, in the causation or aggravation of agricultural depression, to have assisted in also depressing the marriage-rate. Attention is also called to the continued increase of the mean age at marriage: marriages are postponed later than was formerly the case, the effect of which is to lower the recorded marriage-rate. The mean age at marriage among males appears to range from 24 among miners, to 29 among farmers and 31 among the professional and independent class. The ages of the wives in these classes range from 22 to 27 years. The proportion of under-age marriages is, however, still excessive, as 8 per per cent. of the bachelors and 24 per cent. of the spinsters married in 1886 were minors, and in 6 per cent. of the marriages of bachelors and spinsters, whose ages were stated, both parties were under age.

Bearing in mind the decreasing marriage-rate, and the increasing age of persons at marriage, it is not surprising to find that the birth-rate is also considerably depressed. It was 32·4 in 1886, and lower than in any year since 1848, when the same rate was recorded. In 1876 the rate was 36·3, since which it has steadily fallen year by year. It is satisfactory to find that the proportion of illegitimacy has shown no increase, but has rather declined, coincidently with the decline in the marriage-rate.

The death-rate in 1886 was 19·3 per 1000, and, excepting 1881 and 1885 when the rates were 18·9 and 19·0, was lower than the rate recorded in any previous year. It is noted that the English death-rate exceeded 20 per 1000 in each of the years 1838-80, whereas in each of the six years 1881-6 the rate was below 20. This marked decline in the English death-rate has not been equally shared by males and females, as the male death-rate now bears a larger relative proportion to the female rate than it formerly did; in 1886, in equal numbers living, the deaths of males were as 1109 to 1000 deaths of females. As regards the ages of the decedents, the mortality in 1886 showed an excess among infants and among old people, due to the hot summer and to the prevalence of low temperatures in February and in December.

Notwithstanding the fatal prevalence of summer diarrhœa, the deaths referred to zymotic or specific febrile diseases was considerably below the average. The mortality from small-pox was the lowest on record, as was also that from typhus. The death-rate from enteric fever, although slightly higher than the unprecedentedly low rate in 1885, was with this exception the lowest on record. The death-rate from diphtheria and from whooping-cough did not materially differ from the average; and the rate from measles alone exceeded the average, although it was not so high as in the previous year. The death-rate from scarlet fever was lower than in any year on record. The rate from this disease, which prior to 1883 had never been below 500 per 1,000,000 living, was 472 in 1883, 400 in 1884, 231 in 1885, and further fell to 215 in 1886.

The report contains a valuable and detailed examination of the relation of scarlet fever to age and sex. During the twenty-seven years 1859-85, nearly half a million deaths from scarlet fever were registered in England and Wales; these deaths form the basis of the calculated rates of mortality according to sex and age. With a view to ascertain

whether the variations in these rates were due to differences of liability to disease, or to differences of case-mortality, the case-mortality distinguishing sex and age was examined in nearly 18,000 cases of the disease treated in the London Fever Hospital and in the Metropolitan Asylum Hospitals during the twelve years 1874-85. From the known mortality from scarlet fever at different ages, and the known case-mortality in hospital cases at the same groups of ages, the number of cases of attack have been calculated; and, finally, the proportion of the population that is protected at each successive age period in each sex is given in the report, with the relative proportions between the cases and the unprotected population. The main results deduced from these calculations, after due allowance for the hypothetical character of some of the assumptions, are (1) the mortality from the disease is at its maximum in the third year of life, and afterwards diminishes with age—at first slowly, and afterwards rapidly; (2) the liability to attack of the unprotected is small in the first year of life, reaches its maximum about the fifth year, and then rapidly decreases with age; (3) the chance of fatal termination of an attack is highest in infancy, then declines with age to the twenty-fifth year of age, and afterwards slightly increases again; (4) females are more liable throughout life to an attack than males, but the attacks in males are more liable to fatal termination than the attacks in females. It is not easy to overrate the value of this important contribution to the literature of scarlet fever, which concludes with the following words: "Independently of the plain fact that a very large proportion of persons go through life without contracting this disease, it is shown that the longer an attack is deferred the less likely is it to occur at all; and not only so, but that even supposing it to occur eventually, the less likely it is to end fatally." Such conclusions should not only strengthen the hands of medical officers of health in their endeavours to combat infectious disease by isolation, but should secure the more intelligent co-operation of the public in the same direction. If there is still a lingering doubt in some quarters as to the separation from its family of a child attacked by scarlet fever being worth the trouble and expense it involves, on the ground that the other children are almost certain to contract this disease at some future time, and that therefore they may as well have it at once, the above-mentioned conclusions of the Registrar-General cannot be too widely disseminated.

Among the many other points of interest connected with the causes of death discussed in the report now under notice, we will now only mention the marked decline in the death-rate from accidental violence in recent years. In 1865 the accidental deaths in England and Wales were equal to 735 per million living, since which the death-rate from this form of mortality has fallen uninterruptedly, and in 1886 it did not exceed 534 per million.

On the whole, the Registrar-General's report on the health condition of the people in 1886 is eminently satisfactory, as affording abundant proof of the benign results of modern sanitary science and progress, and reads a public lesson full of warning against a rest-and-be-thankful tendency in health matters, at the same time that it gives the fullest encouragement to persevere steadily in a course of sanitation which has already yielded such glorious results.

REPORTS ON BROADMOOR CRIMINAL LUNATIC ASYLUM, 1886.

DR. NICOLSON'S report of this unique asylum cannot fail to be read with the deepest interest by all who have the care and the cure of the insane at heart.

On January 1st, 1886, the asylum contained 537 inmates, of whom 401 were men, and 136 were women. During the year 26 men and 14 women were admitted, and 6 men and 4 women were discharged from custody. The average number resident was 532, of whom 394 were men and 138 were women. The 40 admissions include two cases of readmission, one man and one woman; and it so happens that they had both been conditionally discharged during the year to the care of relatives. In the one case the man had been brought up at the Central Criminal Court in 1882 on a charge of burglary. The jury found him not guilty on the grounds of insanity, and he was ordered to be detained in custody during Her Majesty's pleasure. After a residence in Broadmoor of nearly four years, he was, in May, 1886, conditionally released, by warrant of the Secretary of State, to the care of his son. In August he relapsed, and had to be re-admitted. He had on several occasions been the inmate of asylums. The other readmission was that of a woman who in 1880 had killed one of her children aged six months. She was found to be insane, and ordered to be detained during Her Majesty's pleasure. She was removed to Broadmoor in a condition of intense melancholia, which gradually passed off. No relapse occurred, and the patient was sent home by request of the husband in July. A family and social gathering on her return produced headache next morning, suicidal melancholia, and homicidal propensities towards the other children, necessitating her return to Broadmoor five days after her release. Of the 40 admissions, 13 were in connexion with cases of murder, 7 men and 6 women, besides 2 women who were indicted for manslaughter. Of the men who committed homicide, two killed their own child or children, one killed his wife, and another killed his wife and his sister-in-law, while three took the lives of men not related to them. The eight women each took the life of one child of her own, the ages of the children varying from three years and a half down to one hour or less. Of the admissions, 7 were men who had attempted to commit murder. The discharges during the year numbered 29; of these, 10 were discharged from custody, and 19 were transferred to other asylums. Of those discharged, 6 (2 men and 4 women) had committed murder. Up to the end of the year, satisfactory periodical reports had been received of all, whether murder cases or not, who had been conditionally released in the course of the year, except as regards the two already mentioned as having to be readmitted. Two of the men were discharged from custody absolutely. The deaths during the year were 17 in number, 14 men and 3 women. The percentage of deaths reckoned upon the average daily number resident was, for men, 3·55; for women, 2·17; for both men and women 3·19. The average age at death for both sexes was fifty-seven, as many as 9 of the 14 men being upwards of sixty years old. The extremes were eighty-seven and thirty years. The coroner held an inquest upon every inmate that died. A post-mortem examination was made in each case. The causes of death were all of an ordinary character, and no death was due to violence, suicide, or accident. The general health of the inmates was satisfactory, and there was an entire immunity from epidemic disease. On Dec. 31st, 1886, the population included 276 inmates who had committed homicide, and in addition to these there were 141 who had attempted to murder, maim, &c. The remaining 114, out of the total population, were persons who had qualified for the criminal register by the commission of acts or offences, more or less grave, against law and order. The epileptics at the end of the year numbered 38. There were 185 male and 106 female inmates engaged in various kinds of industrial occupation during the year. The working patients receive payment at the rate of one-eighth part of the estimated value of their work. There were no escapes or restraints during the year. The asylum possesses no padded room, and a strait waistcoat, if there is one in the place, is never used. No casualty of a serious kind occurred to any inmate. The tiding over a whole year, and indeed a number of years, without a grave casualty to inmates under trying circumstances, is greatly to the credit of the attendants. There are 74 attendants in the male division (that is, 1 to every 5 or 6 patients), and 28 in the female (that is, 1 to every 4 or 5 patients), of whom 67 per cent. of the male attendants and nearly 41 per cent. of the female attendants have been in the service upwards of five years, while as many as 58 per cent. of the male attendants and 29 per cent. of the female attendants have over ten years' service. In March, 1886, a fire—happily of no very serious moment, and of very limited extent—took place in the laundry. During the year necessary structural additions and alterations have been proceeded with or completed. Arrangements were fitted up with a view of placing the various parts of the asylum and the medical officers' quarters in telephonic communication with one another. The average cost per patient for the year ending March 31st, 1887, was £45 14*s.* 2*d.*

This concise but able report concludes very appropriately with an allusion to the retirement of Dr. Orange from the post of Medical Superintendent, which took place on

May 31st, 1886. His association with the establishment dated back to its very opening. In 1870 Dr. Meyer was cut off by death in the midst of most excellent work, and Dr. Orange was promoted to succeed him as Superintendent. Broadmoor, as Dr. Orange left it, after years of no ordinary mental strain and unsparing self-devotion, was an asylum of the highest reputation, and its system of administration was acknowledged on all hands to be a conspicuous success. Dr. Nicolson says: "It is not saying too much when I refer to the deplorable injury which Dr. Orange received at the hands of an insane inmate as having been the means of causing the retirement from the public service of an officer of unrivalled experience and judgment on all matters having reference to the subject of criminal lunacy." In addition to a handsome testimonial presented by the officers and staff of the establishment, Dr. Orange received from Her Majesty the Queen the Civil Companionship of the Order of the Bath, to which reference was made at length in our number of June 5th, 1886. Dr. Nicolson succeeded Dr. Orange on June 1st, 1886, as Superintendent, Dr. Isaac being Deputy Superintendent, Dr. Paterson senior assistant medical officer, and Dr. John Baker junior assistant medical officer. These gentlemen, together with Mr. Phelps and Mr. Hayle, have assisted Dr. Nicolson in preparing this very able and instructive report.

BRITISH NURSES' ASSOCIATION.

A MEETING of about thirty leading members of the medical profession was held at 20, Wimpole-street, the residence of Mrs. Bedford Fenwick, on Monday evening, to consider the organisation of the British Nurses' Association. Mr. Savory was voted to the chair. H.R.H. Princess Christian of Schleswig-Holstein, who presides over the Executive Committee, opened the proceedings by stating how deeply interested she was in the matter, and that she trusted that every medical gentleman present would give his assistance and advice. An address, of which the following is an abstract, was delivered by Mrs. Fenwick in explanation of the objects of the British Nurses' Association:—"..... Every physician and surgeon is well aware how different a thing nursing is to-day from what it was fifteen or twenty years ago. Nursing is now universally acknowledged to be an art, and skilled nursing a recognised factor in the modern treatment of disease, and medical men now largely avail themselves of those modes of treatment the general use of which, without scientific nursing, would be quite impossible. Coincident with this, everyone knows that the nurse of the present day is in every way better than her predecessor, and in larger and larger numbers gentlewomen of high education are coming forward to undertake what is truly women's noblest work—nursing the sick. Both the nurse and her work having therefore increased in importance to the commonweal, it has for some time past been felt that the nursing profession should be united and organised as the members of every other profession are. And this not only for mutual help in sickness and old age, but also for the general advancement of professional knowledge and usefulness. A certain Association was formed some four years ago for the ostensible purpose of improving hospital management. Attracted by a special programme, a few lady superintendents of hospitals, anxious to benefit their profession, became members. But they soon found that the medical profession as a body did not support the Association, that hospital managers declined being instructed by amateurs, and, finally, they recognised the enormous dangers of allowing irresponsible outsiders to organise and direct a great power for good or evil, such as a united profession of 15,000 members must necessarily be. In the plainest words I may use, I would say to the few medical men still connected with the Association, and everyone of whom, I am sure, earnestly desires the welfare of nurses, 'Look behind the scenes, examine the details of the working of this Association, and notice how few matrons of standing in their profession are still members, and that not one nurse has ever joined the Association.' Then I am sure they will agree with the nursing profession in ridiculing the preposterous assumption that a member of the Stock Exchange is the proper person to organise and control it. But this Association has positively issued circulars calling upon nurses to register themselves under its auspices at half a crown a head, and after only one year's training, anyhow or anywhere. I may point out that any servants' registry office in the United Kingdom would afford the same questionable privilege." Mrs. Fenwick then reviewed the needs of nurses, commented on the bye-laws of the British Nurses' Association, and concluded by asking her hearers whether they approved of these laws, and what number of medical men should, in their opinion, be on the General Council and Executive Committee, and who they should be, so that the medical profession may always have a controlling voice in the management of the Association, and invited them to attend a public meeting to be held at the end of this month to further the objects of the Association. A draft of the proposed bye-laws was then laid before the meeting, so that the organisation should be subject to the opinions of those present before being definitely settled. Sir Dyce Duckworth, Sir Joseph Fayrer, Sir Crichton Browne, Dr. Matthews Duncan, Mr. Savory, and others took part in the subsequent discussion. The Duke of Abercorn has consented to act as a trustee, and Mr. Robert Barclay as the treasurer. Warm approval of the movement was expressed, and many useful and important suggestions were made as to new bye-laws, and several verbal alterations proposed in those already drafted.

SOCIETY FOR THE STUDY OF INEBRIETY.

DR. NORMAN KERR, President of the Society, delivered the first of a course of three lectures on Inebriety, on the 11th ult., in the large room of the Medical Society of London, Chandos-street. The subject of the lecture was "The Etiology of Inebriety." Inebriety, as distinguished from the act of drunkenness, was defined as a disease of the higher nerve centres, characterised by a very strong impulse to, or craving for, intoxication. Under the head of Predisposing Causes were considered sex, age, religion, race, climate, education, pecuniary circumstances, occupation, marriage relations, heredity (alcoholic and insane), temperament, associated habits, head and other injuries, diet, and intoxicating agents. The male sex predominated, but the proportion of females was increasing rapidly in England, where it was much larger than elsewhere. The greatest liability was between thirty and forty years of age, but juvenile inebriety was extending fast, both on the Continent and at home. The Jews showed less liability than other religious communities. Religious hysterical excitement had an influence. The Italians and the Spaniards exhibited a much smaller tendency to inebriety than other peoples. Cold climates predisposed more than hot climates. Refinement and culture were serious predisposing causes. In males marriage made little difference; but in females married inebriates were five times as numerous as the unmarried. In 703 cases at the Dalrymple and other homes, 308 had a family history of inebriety. The phlegmatic was the temperament least liable, though the alcohol and tobacco habits were frequently associated. Dr. Kerr held that tobacco did not, to any great extent, predispose to inebriety. Syphilitic, cerebral, chest, and other diseases markedly predisposed thereto; so did head injuries, bad feeding, and bad hygienic conditions; and so also did intoxicating drinks. The chief exciting causes were nerve shock, head and other injuries, sex, pregnancy and maternity, occupation, idleness, climate, over-strain, sociability, and intoxicating agents; domestic worry, financial trouble, bereavement, and unexpected good fortune were all varieties of shock which had operated considerably. Traumatic inebriety was a common phase. Inebriety was often excited by gout, dyspepsia, and epilepsy. Sexual physiological crises were a prolific source. Among the most predisposing occupations were commercial travellers, horse-keepers, daily newspaper work, and liquor traffickers. A marine climate excited some. Italians, sober in Italy, become drunkards in England. Idleness, voluntary and involuntary, was a powerful excitant; so was youthful over-pressure. About one-half of the cases under treatment at the Dalrymple and other homes had been excited to inebriety by association. In other cases the excitant had been an inebriant. If these and other exciting causes were the occasion of inebriety in some individuals, why not in all? Because, unless there was an inebriate diathesis, there was no response in inebriate manifestation, and the storm of excitation passed harmlessly by, after having ineffectually exhausted itself.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6238 births and 4279 deaths were registered during the week ending January 7th. The annual rate of mortality in these towns, which had been 22·1, 20·8, and 24·8 per 1000 in the preceding three weeks, declined again last week to 23·8. During the thirteen weeks of last quarter the death-rate in these towns averaged 21·1 per 1000, and was 1·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 14·8 in Brighton, 17·7 in Bradford, 18·8 in Huddersfield, and 19·5 in Birmingham. The rates in the other towns ranged upwards to 29·3 in Preston, 31·9 in Wolverhampton, 35·6 in Manchester, and 40·3 in Plymouth. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 455 and 503 in the previous two weeks, declined again last week to 493; they included 183 from whooping-cough, 90 from scarlet fever, 67 from measles, 53 from "fever" (principally enteric), 42 from diphtheria, 30 from small-pox, and 28 from diarrhœa. The lowest death-rates from these zymotic diseases were recorded last week in Portsmouth and Bristol, and the highest rates in Derby, Bolton, and Sheffield. The greatest mortality from whooping-cough occurred in Salford, Leicester, Norwich, and Wolverhampton; from scarlet fever in Preston, Sheffield, Huddersfield, and Blackburn; and from measles in Salford, Birmingham, Nottingham, and Bolton. The deaths from diphtheria in the twenty-eight towns included 28 in London, 2 in Birmingham, 2 in Derby, 2 in Leeds, and 2 in Cardiff. Small-pox caused 27 deaths in Sheffield, 2 in Leeds, and 1 in Bristol, but not one in London or in any of the twenty-four other large provincial towns. The Metropolitan Asylum hospitals contained only 8 small-pox patients on Saturday last, against 5 and 7 on the preceding two Saturdays. The number of scarlet fever patients in the Metropolitan Asylum hospitals and in the London Fever Hospital at the end of last week was 2098, against numbers declining steadily in the four preceding weeks from 2764 to 2184; the 160 cases admitted to those hospitals showed, however, an increase upon the number in the previous week. The deaths referred to diseases of the respiratory organs in London, which had been 357 and 442 in the preceding two weeks, further rose last week to 502, but were 54 below the corrected average. The causes of 96, or 2·2 per cent., of the 4279 deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Plymouth, Wolverhampton, Birkenhead, and Cardiff; and the largest proportions of uncertified deaths were recorded in Halifax, Sheffield, Oldham, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·4 and 24·3 per 1000 in the preceding two weeks, further rose to 27·1 in the week ending Jan. 7th; this rate exceeded by 3·3 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 20·3 in Leith and 23·1 in Aberdeen, to 29·5 and 30·3 in Paisley and Edinburgh. The 685 deaths in the eight towns showed a further increase of 78 upon the numbers returned in recent weeks, and included 30 which were referred to whooping-cough, 23 to measles, 18 to diarrhœa, 7 to "fever" (typhus, enteric, or simple), 7 to scarlet fever, 4 to diphtheria, and 2 to small-pox; in all, 91 deaths resulted from these principal zymotic diseases, against 80 and 74 in the preceding two weeks. These 91 deaths were equal to an annual rate of 3·6 per 1000, which exceeded by 0·9 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had declined in the preceding four weeks from 29 to 24, rose again last week to 30, of which 15 occurred in Glasgow, 3 in Dundee, 3 in Aberdeen, 3 in Greenock, and 3 in Leith. The 23 deaths from measles also showed a marked increase upon the numbers in recent weeks, and included 13 in Edinburgh, 5 in Dundee, and 4 in Leith. A corresponding increase also occurred in the deaths attributed to diarrhœa. The deaths referred to "fever," which had been 17 and 5 in the previous two weeks, were 7 last week, of which 2 occurred in Glasgow, 2 in Dundee, and 2 in Leith. The 7 fatal cases of scarlet fever corresponded with the number in the previous week, and included 2 in Glasgow, 2 in Dundee, and 2 in Perth. The 4 deaths from diphtheria showed a decline of 9 from the number in the previous week, 2 being returned in Edinburgh. The 2 deaths classed to small-pox were said to be fatal cases of chicken-pox, and occurred in Glasgow and in Dundee. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 132 and 184 in the preceding two weeks, declined again last week to 163, and were 50 below the number returned in the corresponding week of last year. The causes of 87, or nearly 13 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 29·4 and 36·2 in the preceding two weeks, further rose to 38·6 in the week ending January 7th. During the thirteen weeks of last quarter the death-rate in the city averaged 31·9 per 1000, the mean rate during the same period being but 20·0 in London and in Edinburgh. The 261 deaths in Dublin last week showed a further increase of 16 upon the numbers in the previous two weeks; they included 9 which were referred to scarlet fever, 9 to whooping-cough, 7 to "fever" (typhus, enteric, or simple), 6 from diarrhœa, 2 from measles, and not one from small-pox or diphtheria. Thus the deaths referred to the principal zymotic diseases, which had been 28 and 16 in the preceding two weeks, rose last week to 33; they were equal to an annual rate of 4·9 per 1000, the rate from the same diseases being 3·1 in London and 4·2 in Edinburgh. The deaths referred to scarlet fever, whooping-cough, "fever," and diarrhœa considerably exceeded the numbers respectively registered in the previous week. The deaths both of infants and of elderly persons also showed a considerable increase. Eleven inquest cases and 9 deaths from violence were registered within the city; and 61, or nearly a fourth, of the deaths occurred in public institutions. The causes of 34, or 13 per cent., of the deaths in the city during the week were not registered.

Correspondence.

"Audi alteram partem."

COW-POX AND SCARLATINA.

To the Editors of THE LANCET.

SIRS,—The Hendon cow bids fair to become as famous in the history of pathology as that cow of Jenner's whose horns are enshrined in the College of Physicians. Indeed, horns other than bovine suggest themselves to an impartial reader of the discussion at the Pathological Society; and, if no point of reconciliation can be found, it would appear possible that one or other of the distinguished combatants therein must suffer transfixion upon the cornual appendix which appertains to a disjunctive dilemma.

It is most important to keep the issues clearly before the mind. Dr. Klein maintains that "a particular disease" of the cow will give man scarlatina, that a special micrococcus is associated with this disease, and that the same organism is recoverable from the blood of scarlatinal patients. Professor Crookshank, on the other hand, has investigated a disease which certainly closely resembled that of the Hendon cows; he has isolated therefrom a micrococcus which "exactly corresponds with the description and figures given by Dr. Klein of the so-called *micrococcus scarlatinæ*," and "is convinced that the disease of the teats of the cattle is the true Jennerian cow-pox."

To those who have received with impartial judgment the evidence of these highly qualified investigators, and who agree with Dr. Klein in regarding his premisses as amounting almost to mathematical precision, and, on the other hand, are not inclined to regard Professor Crookshank's argument as so "flimsy" and fallacious as the medical officer of the Local Government Board would have us believe, there is yet a *via media* open. There is every possibility—indeed, from our knowledge of the authorities themselves, there is every probability—that they are both correct in their views. Accepting for a moment such a contention, what will be the necessary implication? It will be this, that cow-poxed milk may give man scarlatina. Such a conclusion may appear

startling in its novelty, in the pathological questions it raises, and in the affinities of morbid conditions it suggests; at the same time it is worthy of study. There are not wanting facts concerning the evolution of zymotic poisons which warrant its consideration, and it is irresistibly forced upon the mind of an impartial reader of the reports of two investigators so exceptionally qualified in every respect.

The nature of cow-pox, its evolution, and affinities have occupied my best attention for many years, and I may perhaps be permitted to quote from my notes a case which bears upon the subject under discussion.

On May 20th, 1880, I saw a man, William D——, aged forty-five, who complained of some spots on his fingers which appeared five days previously; also of feeling feverish and unwell. He was a healthy-looking man, a milkman, or rather a dairyman, by occupation. He complained of having pain in the affected fingers, also in his arms, axillæ, and at the back of his head and between his shoulders; tongue furred and temperature elevated. On the first, second, and third fingers of the right hand, and on the second and third fingers and upon the palm of the left hand, were several perfectly circular dull bluish-white vesicles—ten or twelve in all—with distinct central umbilication and very small areolæ. The whole of the hands was swollen and the axillary glands enlarged. He did not remember having had any cracks or fissures on his hands or fingers. He had been engaged in milking the cows at a certain dairy in Islington until the previous day, when he was unable to continue on account of the pain. He had been vaccinated previously on both arms successfully, and in several places. Under observation the vesicles pustulated, scabbed, and cicatrised after the fashion of ordinary vaccination.

The same afternoon I visited the dairy in question, where I found about forty-five cows closely packed in a stuffy, ill-ventilated, and filthy shed. About ten of the whole number were affected with sores on the teats; these I examined with great care. Those in the early stage presented small indurated papules; I could find none in a truly vesicular stage, but many had passed into unhealthy-looking ulcers, either freely discharging a thin colourless lymph, or covered with copious, almost rupial, crusts. The affected cows were restless and irritable; their coats "stared"; but their milk was normal in quantity, with a good "head," and was sold over the counter with the rest. I was informed by the superintendent that some years ago the disease, which he called "cow-pox," had been very prevalent, but of late years instances of it had been both few and far between. The point which struck me more than any other was the entire absence of anything that could be called unequivocally specific or characteristic about the eruption upon the cows' teats. Dr. Klein's and Professor Crookshank's descriptions of the Hendon and Wiltshire cow diseases would apply to the cases I saw in 1880, and of which I have sketches before me, made at the time. I also have before me Mr. Ceely's beautiful drawings, and his Plate 2 would represent the Islington cow disease very faithfully. The vesicles on the dairyman's hands were just like the drawings in Jenner's "Inquiry," only rather smaller.

Turning now to the Registrar-General's returns for London in the same year 1880, I find that scarlatina was unusually prevalent in London that year, as measured by mortality; that the northern districts suffered severely; that in Islington and Hackney, the parts probably within the radius of supply of the dairy in question, there were 366 deaths from scarlet fever out of a population (1871) of 263,882, while in all the other northern districts together, with a population of 487,847, there were only 277 scarlatina deaths. I do not presume to base any argument upon these figures. The relationship may be as coincidental as suggestive, and requires comparison with other years, for which I have not the statistics at hand.

I am, Sirs, yours faithfully,

W. J. COLLINS, M.D., M.S., B.Sc. Lond.

Albert-terrace, Regent's-park, Dec. 26th, 1887.

THE TREATMENT OF CANCER.

To the Editors of THE LANCET.

SIRS,—During my connexion with the Birmingham and Midland Eye Hospital and the General Dispensary, as one of the honorary staff of those institutions, as well as in private practice, I have met with a great number of cases of malignant disease, in which not only was the pain greatly relieved by local depletion, but by it also the progress of the malady was arrested to a large extent. Cancer being especially a blood disease, I can scarcely imagine any treatment more likely to cure it, if any treatment can do so, than the removal of the blood which contains the germs of the disease, combined with the substitution by transfusion of other and more pure blood taken from younger and more healthy subjects. I have many times afforded such patients great relief from pain by the local abstraction of blood with the artificial leech, though at present I have not gone so far as to adopt transfusion with the view of producing a permanent cure of the disease; but I should be very glad if some of my professional brethren, especially those connected with hospitals for the cure of this hitherto fatal disease, would put the practice more completely to the test. A few weeks ago, noticing the very unfavourable reports of the condition of the Crown Prince of Germany, and that excision of the larynx was proposed, I took the liberty through His Imperial Highness's chamberlain, Count Radolinsky, of suggesting my plan of treatment, and I was gratified about a fortnight ago at noticing that blood had been removed from the neck by the cupping process (artificial leech); and I was still more pleased to hear how much the local congestion had diminished, and how greatly the comfort of the illustrious patient had been increased. I further suggested that the local depletion should be renewed from time to time, subject to the discretion of the distinguished physicians who were in attendance on His Imperial Highness; but should the loss of blood tell on the patient's health and strength, I suggested that transfusion should then be resorted to.

If I might be permitted, I would say that the practice both of general and local bloodletting has gone out of use to an unwarrantable extent, and if the practice were in some degree restored, especially in the earlier stage of inflammatory diseases, many valuable lives would be saved. Personally I have great reason to speak in favour of bloodletting, since when I was only seven years old, and my case being supposed to be nearly a hopeless one (convulsions), under the advice of one of the most eminent physicians Birmingham ever had—Dr. D'Lys—I was bled in the arm by the late James Russell, and by that my life was probably saved.

Being a member of the Midland Medical Society, I had the privilege some few years ago of giving a prize of five guineas for the best essay on general and local bloodletting, and many useful and valuable essays were written on the subject. Hydrophobia and other diseases of the septic class, if not too long delayed, I feel convinced, might be treated on the same plan with great advantage; and it is quite possible, I think, if M. Pasteur were to take it up and act upon it, he would find it far more useful in many cases than inoculation, which is always attended with hazardous and sometimes fatal results.

I think it is highly important, as I said before, that the plan should be more extensively put to the test, and I should be glad if some of your correspondents, especially those practitioners who are connected with cancer hospitals, would thoroughly test the plan and give your readers the benefit of their experience.

I am, Sirs, yours &c.,

EDWIN CHESSHIRE, F.R.C.S.,

Consulting Surgeon to the Birmingham and Midland Eye Hospital.

Birmingham, Dec. 31st, 1887.

THE HÆMORRHAGIC TENDENCY IN MYXŒDEMA.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 31st Dr. Shelswell draws attention to a hæmorrhagic tendency in myxœdema, and in support of this fact he quotes two cases under his own observation, besides that of Dr. Savill and thirteen other reported cases, "where hæmorrhage of one form or another had occurred, but had not, as a rule, attracted any particular attention as bearing on the disease." I am able to supplement these cases by three others at present under my notice, in all of which there is a hæmorrhagic tendency present. Of the three cases, one is that of a man in whom after the extraction of some loose teeth there followed a recurring hæmorrhage, which lasted three days. Again, pricking his finger, in order to make a microscopic examination of the blood, was sufficient to cause bleeding for nearly a day. In

the other two cases menorrhagia has been present as a symptom in both, and pricking the finger produced a similar result to that in the case of the man. I may further add that the microscopic examination of the blood showed a marked relative increase in the number of white corpuscles, and this doubtless has some bearing on the tendency to hæmorrhage. I venture, therefore, to agree with Dr. Shelswell in his statement that we may regard hæmorrhage as one of the symptoms of the disease.

I am, Sirs, yours faithfully,

Finsbury-square, Jan. 9th, 1888. ARTHUR DAVIES.

THE RENAL GLOMERULI IN DISEASE.

To the Editors of THE LANCET.

SIRS,—In No. 19 of vol. ii. of THE LANCET for 1887 on page 921, I find, in a reference to my article, two remarks which do not entirely agree with my ideas, and which may cause me to be misunderstood. The first quotation is as follows:—"The glomerular investing membrane is, according to Hausemann, merely a layer of cells with scanty nuclei, and cannot, as usually stated, be separated into a basement membrane and endothelium." The second runs thus: "He finds that the delicate walls of these capillaries are simply composed of epithelium." Now, in my article, I say distinctly in several places that I make a distinction between the vessels and the investing membrane of the glomerulus (capillary tuft). The latter investing membrane, consisting only of epithelial cells, can be separated to a certain extent in its entirety, leaving behind the bare vessels, which are composed, according to Langhans, of two layers—a basement membrane and an endothelial layer. Here, in every case, I can find only a simple wall with few nuclei. In conclusion, I remark: "Die Schlingen würden in der That wahre Capillaren *sein*, wenn sich ihre Zellgrenzen durch Argentum nitricum darstellen liessen. So gleichen sie, wie Hortoles richtig bemerkt, den Gefässen der Hyaloidea des Frosches.

I am, Sirs, yours truly,

Berlin, Dec. 23rd, 1887. DR. HAUSEMANN.

NORTHERN COUNTIES NOTES,

(From our own Correspondent.)

THE HEALTH OF NEWCASTLE-ON-TYNE.

ALTHOUGH there has been a further decline in the death-rate of the city, which is so far satisfactory, a rate of 25 per 1000 is far too high, and it is to be hoped that our sanitary authorities will not relax their endeavours to reduce it still lower, and if possible keep it there. The public press has shown an intelligent activity in the matter, and the *Newcastle Daily Leader* has done good work by its special commissioner, who has pointed out many dark spots in the sanitary map of the city. In this gentleman's opinion the defects are due more to neglect on the part of the sanitary inspectors and to want of proper scavenging than to any fault on the part of the engineer's staff. This is all very well, and so far I agree with him, but the causes are more complex than touched upon in the report of the *Leader's* commissioner. Coming here a stranger, he would, as a matter of course, in a casual inspection, see merely the outsides of things, and could know little or nothing about the domestic and out-door lives of the people. Apparently he has not visited the "long bars," nor has he touched upon the "sweating system" so fully explained at the late meeting of the Trades' Council, where it was pointed out that the system tends to spread infectious diseases, where in some cases one room serves for a workshop and lodging for several people in carrying on what is known by the "sweating system" of cheap tailoring. It is well known to all medical men here that the occupation of new houses before they are properly dried is a fruitful source of many diseases tending to swell the death-rate. I do not know whether our Corporation have any bye-law relative to the inspection of these new houses, but I am quite sure that it is not properly carried out.

NEWCASTLE HOSPITAL SUNDAY FUND.

The final lists of the hospital collection have now been published, and I regret to see a considerable falling off in the amount—£373,—as compared with the collection of 1886. The change in the constitution of the Royal Infirmary will partly account for this. Many of the workshops extend their collections over the year, and remit them to the infirmary.

Newcastle-on-Tyne, Jan. 11th.

ABERDEEN.

(From our own Correspondent.)

THE MEDICAL OFFICER OF HEALTH.

DR. THOMSON left to-day for Sheffield, and Dr. McKenzie Booth has entered upon his duties as *interim* medical officer. It has not yet been decided what position Dr. Thomson's successor is to occupy. At a meeting of the Public Health Committee held on the 4th inst., the convener, Dr. Moir, submitted two alternative proposals, which he asked the committee to consider in view of the appointment of a medical officer. The first was that the terms of appointment be as at present—that is, the gentleman appointed must devote his whole time to the duties of the office, but in future he must reside at the City Hospital; and the other proposal was that a young man should be appointed to reside at the hospital, and that "a really first-class medical man," having a practice of his own, should be appointed medical officer, his duties being to visit the hospital about once a day and give his services when required to the sanitary inspector, and for this he is to receive a "salary of about £80"; the young resident physician is also to have a salary of £80, but in addition he is to be provided with board and lodging. It was agreed that in any case the sanitary inspector is to be, as at present, the head of the sanitary department, having the charge and direction of the other members of the sanitary staff, including the persons engaged in the cleansing and disinfecting of infected clothing, and he is to be responsible to the Town Council for the efficiency of his department. The superintendence of the disinfecting of infected clothing is an addition to the present duties of the sanitary inspector, and is the result of complaints made to the Public Health Committee with regard to children sent home convalescent from the City Hospital being the cause of a renewed outbreak of fever in their families.

THE OFFICE OF POLICE SURGEON.

By the resignation of Dr. Theodore Thomson, the office of police surgeon also becomes vacant, and at their meeting the Public Health Committee had before them a representation from the superintendent of police suggesting that some medical man other than the medical officer of health should be appointed police surgeon. The reasons given for the proposed change were that difficulty had often been experienced in regard to accident and other cases in securing the services of the medical officer when they were required, and that the members of the police force were averse to having as their medical attendant an official who was largely occupied in the treatment of infectious diseases.

CONTRAVENTION OF THE PUBLIC HEALTH ACT.

A young man, a grocer's assistant, was charged in the police court on Wednesday the 4th inst. "with having while suffering from an infectious disease—namely, scarlet fever—wilfully exposed himself in Rosemount-place, entered a hackney carriage, driven in the carriage to the railway station, walked among the people at the station, and entered a railway carriage, without proper precaution against spreading the disorder." The lad's parents lived in the country, and after his removal to his home some members of the family continued to attend school, and the result was an outbreak of scarlet fever in the district. He pleaded guilty, and the baillie, remarking on the grave nature of the case and the very serious results that had followed the thoughtless action of the accused, imposed a fine of a guinea, with £1 1*s.* 3*d.* costs, the alternative being ten days' imprisonment.

THE CITY HOSPITAL.

On Jan. 4th there were only thirty-seven cases of zymotic disease in the City Hospital, one being a case of small-pox, two or three of typhus fever, and the others of scarlet fever. There were no deaths in the hospital during the month of December. The building of the new pavilion cost £908, and, by architects' fees and furnishings, exclusive of heating apparatus, the expense was brought up to £1602. At a meeting of the Public Health Committee it was remitted to

the city architect to consult some local engineer as to the best mode and probable cost of efficiently heating the building. This pavilion was built as a provision against serious outbreaks of fever in the city, but has not yet been used.

REGULATIONS AS TO DAIRIES, COW-SHEDS, AND MILK-SHOPS IN ABERDEEN.

The Public Health Committee has agreed to recommend the Town Council to adopt a number of new rules and regulations as to dairies, cow-sheds, and milk-shops. The regulations make provision for the inspection of dairies; for the lighting, ventilation, cleansing, drainage, and water supply of dairies and cow-sheds; for securing cleanliness of milk stores, milk-shops, and milk vessels; and for prescribing precautions to be taken by purveyors of milk against infection and contamination. The regulations are stringent, and, among other things, it is laid down that no milk-shop or other premises where milk is kept shall be used as a dwelling room or sleeping apartment, or be in direct communication by door, window, or otherwise with a dwelling room or sleeping apartment.

THE PUBLIC HEALTH ACCOUNTS.

From the public health assessment account, it appears that the income has increased from £3510 to £4602 14*s.*, and the expenditure from £3724 18*s.* 10*d.* to £4857 3*s.* The expenditure on the City Hospital, which in 1884-5 was £520 4*s.* and in 1885-6 £1724 10*s.* 9*d.*, was last year £2332 3*s.* 9*d.*

Aberdeen, Jan. 10th.

DUBLIN.

(From our own Correspondent.)

EXECUTION OF DR. CROSS.

PHILIP CROSS was hanged this (Tuesday) morning in Cork County Gaol for the murder of his wife, in June last, by poison. The executioner was Berry, and the drop close on six feet. An inquest on his remains was held the same morning, when Dr. Moriarty, the prison surgeon, gave evidence that the spinal column of the deceased had been dislocated, and that death appeared to be instantaneous. The inquest was adjourned for the production of Berry, who had left Cork immediately after the execution.

THE ROYAL BARRACKS, DUBLIN.

Yet another victim to the insanitary condition of these barracks must now be added to the long list of those who have died from typhoid fever contracted in these buildings. Lieutenant Campbell, 72nd Battalion, Royal Highlanders, while in the Royal Barracks became ill, and proceeded on leave of absence, on the 1st inst., to his home in Cork, where he died from typhoid fever on the 7th inst. These barracks have proved a veritable hotbed of disease to many a brave officer and soldier; and it is simply monstrous that such a condition of affairs should be permitted to exist without a searching inquiry being held into their sanitary condition.

THE M'GOVERN TREATMENT OF HYDROPHOBIA.

The following example as proving the inadequacy of the M'Govern treatment may be of interest: A man named Phillips died recently in Monaghan from hydrophobia. About two months ago he was bitten by a mad dog, and shortly afterwards underwent the M'Govern treatment. Dr. Tyrrell Cummings writes from Manorhamilton in reference to another instance of failure by this method of treatment. A girl named M'Gowan was bitten in three places, and on the following morning she was sent to M'Govern, under whose care she remained for three days; her parents, although poor, paying a fee of £4. She was bitten at the end of September, and died on Dec. 17th from hydrophobia.

SOUTH DUBLIN UNION WORKHOUSE.

The report of Mr. Robinson, Local Government Board inspector for the past half-year, is of a satisfactory character as to the general condition and management of the workhouse. He suggests that the present Children's Hospital would be suitable for a nursery department if the children were moved to the new building, and he hopes that whatever accommodation is decided upon for the nursery classes may be made available for them as early as possible, as the sheds they now occupy are in a dangerous state of dilapidation.

BRITISH MEDICAL ASSOCIATION: DUBLIN BRANCH.

The eleventh annual general meeting of the Dublin Branch will be held at the College of Physicians on the 25th inst., when the officers and council for the ensuing year will be elected by ballot, and Dr. Mapother, President-elect, will deliver an address. At the termination of the business of the annual meeting the portrait of Dr. Banks, the President of the Association, will be presented to the College, on behalf of the subscribers to the reception fund of the late annual meeting of the Association in Dublin. The annual dinner of the branch will take place in the hall of the College the same evening.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A meeting of the Pathological Section will be held on Friday next, when, besides other papers brought forward, will be one on a case of Suicidal Wound of the Heart with a Pin, by Mr. Thomson, the details of which are expected to be of interest.

DUBLIN ORTHOPÆDIC HOSPITAL.

A ball in aid of the funds of this estimable charity takes place on Wednesday evening, and is expected to be well patronised. The company will include their Serene Highnesses the Prince and Princess Edward of Saxe-Weimar.

ARMAGH LUNATIC ASYLUM.

An outbreak of pneumonia has taken place in this asylum, and, so far as can be ascertained, some twelve deaths have, it is said, taken place. I have not heard whether any defect exists in the drainage of the asylum, but probably the information will be forthcoming in a few days.

By the bazaar held last month on behalf of the National Children's Hospital, a sum of £158 1*s.* 5*d.* has been realised.

Dublin, Jan. 10th.

PARIS.

(From our Paris Correspondent.)

DISINFECTION AND ISOLATION.

ON NOV. 26th the Minister of Public Instruction requested the Academy to give its opinion as to the duration of the isolation imposed upon the pupils of the public schools affected with contagious maladies. In answer to this the Section of Hygiene presented the following conclusions:—1. Pupils affected with chicken-pox, small-pox, scarlet fever, measles, or diphtheria should be rigorously separated from their fellow-pupils. 2. The duration of the isolation should be calculated from the first day of the invasion of the malady. It should be forty days for small-pox, scarlet fever, and diphtheria, and twenty-five days for chicken-pox and mumps. 3. The isolation will cease only when the convalescent shall have taken two or three soapy baths, and have been submitted to as many frictions all over the body, including even the scalp. 4. The clothes which the pupil may have worn at the time that he fell ill should be introduced into a steam stove or submitted to sulphurous fumigations, then thoroughly washed or cleansed. 5. The room occupied by the patient should be thoroughly aerated. The walls and the furniture should be washed with a solution of corrosive sublimate. The bedding should be disinfected in a vapour stove under pressure; the mattress, previously taken to pieces, should be subjected to the same process. 6. The pupil who may have been affected, outside the school, with one of the contagious maladies enumerated in this report cannot return to his school without furnishing a certificate from a medical man attesting that the pupil has conformed to the requirements enunciated above. As regards measles, twenty-five days of isolation were considered sufficient, the contagion being much less manifest at the end, during desquamation, than at the outset, during the invasion. As no mention was made of whooping-cough, it was suggested that this malady should be included in the above report, but no member of the Academy could fix the duration of the malady, and consequently the period of isolation necessary. Dr. Legroux, physician of the Trousseau Hospital for Children, read a paper before the Academy giving the report of six cases of whooping-cough which were radically cured, and without relapse, in the space of twenty-seven days, instead of sixty-seven days, which is the average duration of this malady, and ninety days according to Dr. Cadet-Gassicourt. In the same paper, Dr. Legroux pro-

fesses to have rapidly cured several cases of chorea with antipyrin. He administered it in doses of one gramme three times a day. To the proposition that the walls and furniture of an infected room should be washed with a solution of corrosive sublimate, Dr. Gautier observed that it would be impossible to carry out this measure, and that it would be better to disinfect them by means of sulphurous acid, as the corrosive sublimate would damage the furniture.

ELECTRICAL "SUNSTROKE."

Dr. Defontaine has seen symptoms of "sunstroke" occur amongst the workmen of the Creuzot foundery exposed to the influence of a powerful electrical *foyer*. The current in question is used for welding steel, and at the luminous point, which is equal to 10,000 carcels, its strength is 450 ampères. These symptoms consist of reddening and tumefaction of the skin of the parts exposed, followed afterwards by desquamation, congestion of the conjunctiva, with pain and hyper-secretion; subsequently torpor of the retina and dyschromatopsia, visual objects having a yellow appearance. Empirically, the engineers of the establishment have adopted the use of spectacles made of red and yellow glasses combined, which lessen the irritation to the eyes. As a rule, the symptoms soon pass away, and the occurrence of optic neuritis, said to result by some observers, is considered by Dr. Defontaine doubtful.

SANITY OF AUBERTIN.

With reference to my report which appeared in THE LANCET of Dec. 31st, on the state of mind of the criminal Aubertin, it may be interesting to add the following observation on his present condition. Since he has been transferred to the Mazas Prison Aubertin seems to have completely recovered his reason, and does not experience any of the symptoms described in my report. In writing to a friend of his, he stated that since his arrival at the prison he has felt as well as possible, "including his head." Three days ago he received a visit from his partner in business, a middle-aged woman, with whom he conversed rationally. He does not wish to be considered a lunatic, and has even composed, on this subject, satirical verses, which he proposes to forward to his advocate, who, he knows, intends to plead insanity on his behalf. The prisoner passes his time in writing and in composing songs, with which, he says, the Censor can have no fault to find. He has never, either in his conversations or in his letters, made any illusion to the attempt at murder that he had committed. He has never pronounced the name of M. Jules Ferry, and appears to be indifferent as to the issue of his trial. There is only one thing, he says, that he dreads—that is, to learn good news too precipitously. This seems to be his only fear, and he has manifested it on several occasions. "I have seen performed 'La joie fait peur,' and one must be very careful when one informs me of success, whatever it may be."

Paris, Jan. 10th.

THE SERVICES.

ADMIRALTY. — The following appointments have been made: Surgeon John F. Bate, to the *Icarus;* Surgeon Robert Hardie, to the *Hercules*, additional; Surgeon and Agent James O'Connell to Crookhaven; and Surgeon and Agent Griffith G. Jones to Amlwch (all dated Jan. 7th, 1888).

ARTILLERY VOLUNTEERS.—1st Cheshire and Carnarvonshire: Acting Surgeon G. R. Griffith resigns his appointment (dated Jan. 7th, 1888).

RIFLE VOLUNTEERS.—2nd (Glamorgan) Volunteer Battalion, the Welsh Regiment: Surgeon J. Lewis, M.D., resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the battalion on his retirement (dated Jan. 7th, 1888).—2nd Volunteer Battalion, the Hampshire Regiment: Surgeon and Honorary Surgeon-Major T. W. Trend, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the battalion on his retirement (dated Jan. 7th, 1888).—1st Midlothian (Leith): Acting Surgeon J. A. Gray, to be Surgeon (dated Jan. 7th, 1888).—3rd Volunteer Battalion, the Northumberland Fusiliers: Acting Surgeon W. C. Wicks, M.B., to be Surgeon (dated Jan. 7th, 1888).—1st Volunteer Battalion, the Worcestershire Regiment: Acting Surgeon H. R. Ker, to be Surgeon (dated Jan. 7th, 1888).—3rd Volunteer Battalion, the Duke of Wellington's (West Riding Regiment): Acting Surgeon A. Ingham resigns his appointment (dated Jan. 7th, 1888).

ROYAL COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council of the College, held on Thursday, the 12th inst., the Minutes of the extraordinary meeting of the 5th inst. were read and confirmed.

The Secretary reported that four dissertations had been received on "The Pathology, Diagnosis, and Treatment of Tumours of the Bladder," subject of the Jacksonian Prize for the past year.

Mr. Henry Power was appointed to deliver the next Hunterian Oration. This will be delivered in February, 1889.

The Council then resumed the consideration of the proposed reply, prepared by the President and Vice-Presidents, to the letter from the Privy Council and the statement presented to the Lord President on behalf of the Association of Fellows on the subject of the Supplemental College Charter. This was carefully considered, and, after a discussion of long duration, it was postponed to an extraordinary meeting of the Council to be held on Thursday next, the 19th.

The Council, in pursuance of their resolution of the 8th ult., appointed a committee, consisting of the President, Vice-Presidents, Sir James Paget, Mr. J. Hutchinson, and Mr. Marshall, to consider and report to the Council on the regulations relating to the election of members of the Court of Examiners.

Obituary.

ALEXANDER DICKSON, M.D., LL.D., F.R.S.E.

THE brightness of Christmas week was sadly dimmed for a wide circle of his friends in Edinburgh and throughout the country by the unexpected announcement of Professor Dickson's sudden death on Friday, Dec. 30th. He was spending the Christmas recess on his delightful estate of Hartree in Peebleshire, and was entertaining a select party of friends, when the brightness and geniality of which he was always a centre was rudely broken by this sad event. During a match of curling on the ice, a favourite pastime with him, he became suddenly faint and did not recover consciousness, though every effort was made to promote his restoration. His career as a botanist has been a most distinguished one; he leaves behind him the record of much thorough and conscientious work in many branches of his chosen vocation, and in several centres of scientific education, where at one time or another he has held teaching appointments, his memory as an earnest worker and successful teacher will long be cherished.

Professor Dickson was born in Edinburgh in 1836, and was educated at the University of that city, where in 1860 he graduated in medicine. At subsequent stages in his career he received the honorary degrees of M.D. of Dublin and LL.D. of Glasgow. In his early days as an undergraduate, and even before that, he was deeply interested in botany, which, in time, became the ruling interest of his life, alike his pastime and his toil. Among innumerable papers and *brochures*, his works on the coniferæ, on pitcher plants, and the arrangement of leaves on the plant stem are perhaps the most widely known and appreciated. In 1862 he conducted the classes of botany in the University of Aberdeen during the illness of Professor Dickie. From 1864 to 1868 he filled the chair of Botany in Dublin University; and in the latter year, the corresponding chair in Glasgow University having become vacant by the death of Professor Walker-Arnott, Professor Dickson applied for and obtained the appointment. In 1879 the Edinburgh chair became vacant on the retirement of Professor J. Hutton Balfour, and Professor Dickson was translated to the post which he had since held. In addition to his high reputation as a scientific botanist and investigator, Dr. Dickson was much and deservedly appreciated as a teacher. His uniform courtesy and kindliness made him readily accessible to his students, who found him ever most anxious to assist them in their studies and to explain to them matters of technical difficulty. While on the occasion of the botanical excursions he was the

boon companion of the youngest and cheeriest of his students, than the scientific Mentor of the whole assemblage. On these occasions, the respectful regard of his students for their teacher developed into a warm personal admiration, that, in many cases, became a close friendship most useful and stimulating to them. These excursions with their delightful combination of interesting work and genial *camararderie*, will long be pleasantly remembered by all who were fortunate to have a share in them. In speaking of his personality, it would in no way be excusable to omit a reference to his relations with the tenants on his Peebleshire estate; the same genial spirit ruled there as pervaded the lecture room and the Botanical Gardens in Edinburgh. He proved himself the ideal landlord whose chief care is to secure in every way the happiness and success of his tenantry, and how thoroughly he succeeded in these efforts is well known to the many friends who have seen him at his home in the rural Arcadia that owed so much of its charm to his frequent presence and his constant care.

J. W. WOOD, L.R.C.P.ED., M.R.C.S.

ONE of the rank and file of the profession has passed away, like a true soldier dying at his post, a victim to the enemy with whom he had done battle so valiantly. John William Wood of the town of Ramsey, Isle of Man, died on Dec. 18th, at the early age of forty, of typhoid fever, taken among his patients. Outside the boundaries of the isle he would be quite unknown, as he had contributed nothing to the literature of the profession, nor had he made any valuable discoveries; but it is hardly likely that the most brilliant member of the profession would be mourned with more general and heartfelt sorrow. John William Wood had worked among rich and poor with unstinted labour. To the poor he was indeed a friend, ever attentive, ever cheering, and many were the tears shed in humble homes when the inmates learned that he whom they loved so well was no more. A prevalence of sickness in the town had heavily taxed his health, already overstrained by the anxieties and demands of a large country practice, so that when he was attacked by typhoid his frame was already weakened and unfit to battle against the fever. During his illness a general subscription was being raised to enable him to take a long rest and recruit—anything that his neighbours and patients might have him back again among them; this now, alas, becomes a testimonial to his widow, to help her with the eleven children, for whom he had been unable to make any adequate provision. The widespread grief, the cordial feeling of his *confrères*, the sympathy from high and low alike, the generous anxiety on all sides to help during the time of sickness, and afterwards of death, all point to the value of the life that has been taken, and to the beauty of a true unselfish following of the teachings and practice of a noble calling. Such humble lives are beautiful commentaries on the whole profession.

PROFESSOR ALONZO PALMER, M.D.

THE death of this distinguished American physician and teacher will leave a gap in the profession of Michigan which it will not be easy to refill. Dean of the Medical Faculty of the University, Michigan, Professor Palmer filled the post with the greatest distinction, together with the posts of Professor of Materia Medica and of Pathology and Medicine. At the late International Medical Congress he held the first place in the department of Materia Medica, and did his best to bring about a good understanding between the discordant elements with which the Congress was heralded into existence. When, a few years ago, the late lamented Professor was on a visit in this country, his graceful bearing, his knowledge, and his singular intelligence won the sincere admiration of all who had the good fortune of meeting him; and we have often heard that in his own country he carried with him the same charm of manner and of command. He was an excellent scholar, a good speaker; and if the two volumes of Practical Medicine which he has left behind him do not rival in richness of style and in descriptive eloquence the famous lectures of our Watson, they go far to show how truly hard a task it is to reach that master in physic.

The late Professor was a staunch advocate of the principle of total abstinence from intoxicating drinks, and with all the courage and candour of his nature declared his beliefs and the truths on which they rested unreservedly to the world. He was born at Richmond, Oswego county, N.Y., on Oct. 4th, 1815; and he died at his residence at Anne Harbour, Michigan, on Dec. 23rd, 1887, after a most painful illness of eleven days.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed the necessary examination in Surgery for the diploma of Member, and having since obtained a medical qualification, were, at a meeting of the Council on the 12th inst., granted their diplomas:—

Andrews, Octavius W., M.B. Durh., Addison-terrace.
Greeves, T. Neville, L.S.A., South-hill Park, Hampstead.
Lakeman, Thomas, L.S.A., Claylands-road.

UNIVERSITY OF CAMBRIDGE.—The following candidates, during Michaelmas term, 1887, were examined and approved in the subjects indicated:—

First Examination for the Degree of M.B.

PART I. CHEMISTRY AND PHYSICS.—Mag. Ansorge, Pemb.; Barnes, Pemb.; Beggs, Sidney; Blandford, Trin.; Bower, Trin.; Boxall, Down; Ds. Brown, H. Selw.; Buttar, Pemb.; Carr, Trin.; Carver, Christ's; Cooper-Pattin, Jesus; Edwards, Emman.; Fish, Christ's; Goldsmith, Caius; Harris, Christ's; Harvey, Joh.; Herd; Hill, Trin.; Hodson, Joh.; Ivatt, Christ's; Langmore, Joh.; Lees, Joh; Ds. Lloyd (W. F.), Clare; Locket, Christ's; Locock, Trin. H.; Master, Caius; Maxwell, Joh.; Neill, Caius; Palmer, Down; Poole, Cath.; Pridham, Caius; Pulford, Trin.; Mag. Sankey, Joh.; Saw, Trin.; Smith (E. A. C.), Caius; Ds. Stack, Pemb.; Staples, Trin.; Storrs, Emman.; Street, Down; Treadgold, Down; Wanklyn, Caius; Winter, Trin.

PART II. ELEMENTARY BIOLOGY.—Atkinson, Clare; Blandford, Trin., Brooksbank, Trin. H.; Chappel, Caius; Cooper-Pattin, Jesus; Day, Caius; Edwards, Emman.; Ruan-Smith, Caius; Fowler (H. E.), H. Selw.; Godson (J. H.), Joh.; Guest, Emman.; Hale (H. O.), Trin.; Harris, Christ's; Harvey, Joh.; Ivatt, Christ's; Jerrard, Caius; Ds. Kimmins, Down; Ds. Lee, H. Cav.; Luce, Christ's; Macdonald (G. M.), Christ's; Ds. North, Sidney; Petyt, Christ's; Royden, Christ's; Savage, Caius; Smith (E. A. C.), Caius; Ds. Smith (E. B.), Down; Street, Down; Willmott, Jesus; Wrangham, Emman.

Second Examination for the Degree of M.B.

PART I. PHARMACEUTICAL CHEMISTRY.—Ds. Attfield, Pet.; Attlee (J.), Joh.; Ds. Bader, H. Cav.; Ds. Batten, Trin.; Ds. Beauchamp, Caius; Beddard (A. P.), Trin.; Belben, Christ's; Bennetts, Caius; Ds. Berkeley (G. H. A. C.), Caius; Ds. Bindloss, Joh.; Birdwood, Pet.; Ds. Bowen, King's; Boxall, Down; Broadbent, Trin.; Buss, Sid.; Ds. Carling, Joh.; Carruthers (A. E.), Christ's; Ds. Colclough, Caius; Mag. Connolly, Caius; Connop, Caius; Cooper-Pattin, Jesus; Ds. Craig, Caius; Ds. Dalton, Trin.; Ds. Daniell (G. H. S.), Caius; Doman, Caius; Dorman, Clare; Ds. Drysdale, Joh.; Dufton, Caius; Ds. Duigan, Christ's; Ds. Edmondson, Joh.; Ds. England (H.), Caius; Ds. Evans (F. P.), Joh.; Evans, Emman.; Finch, Trin.; Ds. Fletcher, Trin.; Ds. Freer, Caius; Gillett, Sidney; Glover, L. G., Joh.; Goodhue, Caius; Grabham, Joh.; Ds. Griffin, H. Cav.; Hales, Clare; Ds. Harrison, Trin.; Ds. Herbert, Caius; Hoffmeister (H. E. W.), Caius; Horton-Smith, Joh.; Kellett, Joh.; Ds. Lambert (S. H. A.), Joh.; Langdon-Down (P.), Trin.; Law, Christ's; Lea (J.), Caius; Ds. Lee, H. Cav.; Ds. Lister, Trin.; Manby, Christ's; Ds. Marks, Jesus; Master, H. Cav.; Mercer, Caius; Ds. Michell, Caius; Ds. Mitchell (E. J. D.), Caius; Molson, Emman.; Monro, Caius; Ds. Nicolls, Pet.; Nix (H. W.), Caius; Peatling, Magd.; Ds. Pethick, Down; Ds. Pryce, Pemb.; Ds. Richards, Down; Ds. Roberts, H. Cav.; Ds. Saunders, Trin.; Selby, Christ's; Sevestre, Trin.; Ds. Shepheard, H. Cav.; Ds. Sladen, Caius; Smith (T. R. H.), Trin.; Stallard, Sid.; Ds. Stephens, H. Selw.; Ds. Thomas, H. Cav.; Vigurs, H. Cav.; Watkins, Caius; Ds. Williams, Caius; Williams (E. C.), Christ's; Ds. Winslow (W.), Caius; Ds. Wright, Joh.

PART II. HUMAN ANATOMY AND PHYSIOLOGY.—Carling; Ds. Cooper, Caius; Ds. Colvin-Smith, Caius; Ds. Crosby, Caius; Ds. Devereux (W. C.), H. Selw.; Ds. Dixon, H. Cav.; Ds. Durham, Christ's; Ds. Earl, H. Cav.; Ds. Edgeworth, Caius; Ds. Edkins, Caius; Fook, Jesus; Ds. Fyffe, Caius; Gilliam, H. Cav.; Gornall, Cath.; Ds. Greaves, Caius; Ds. Griffith, (W. S.), Trin. H.; Ds. Hale, King's; Ds. Hall, Pemb.; Ds. Handson, Caius; Ds. Harrison, Trin.; Ds. Haydon, Caius; Ds. Hill, Clare; Kellett, Joh.; Ds. Low (P. C.), Clare; Ds. Manners, Pemb.; Ds. Martley, Trin.; Ds. Newton, Pemb.; Perkins, Emman.; Ds. Pope, H. Cav.; Ds. Rendle, Christ's; Ds. Richardson (J. C. R.), Caius; Rouillard, Caius; Ds. Simmons (W. W.), Joh.; Ds. Smith (H. A.), Trin.; Ds. Stabb, Caius; Ds. Stanley, Pet.; Ds. Sutton, Clare; Ds. Swayne, Trin.; Mag. Thompson, Trin.; Ds. Troutbeck, Caius; Ds. Turner, Caius; Ds. Waggett, Pemb.; Wild (C.), Jesus; Wilkinson (G., Junr.), Emman.; Ds. Wright, Joh.

Third Examination for the Degrees of M.B. and B.C.

PART I.—Ds. Barber, Cath.; Ds. Blaikie, Caius; Ds. Fox, Trin.; Ds. Haviland (F. P.), Pemb.; Ds. Hicks, H. Cav.; Ds. Lazarus-Barlow, Down; Ds. MacConkey, Caius; Ds. Maclure (H. W.), Pemb.; Marten, Caius; Ds. Mitchell (T. E.), Trin.; Ds. Nuttall, Trin.; Pollock (W. E.), Trin.; Ds. Smithson, Christ's.—Additional Surgical Subjects: Ds. King, H. Cav.; Ds. Servaes, King's; Ds. Williams (A. H.), Joh.

PART II.—Ds. Bisshopp, King's; Ds. Cautley, King's; Ds. Goddard, Caius; Ds. Harrison, Joh.; Ds. Hinnell, Pemb.; Mag. Hunt-Cook, (E.), Joh.; Ds. Jones (H. L.); Mag. Light, Clare; Ds. Major-Browne Down; Marten, Caius; Ds. Redmayne (T.), Trin.; Ds. Rolleston, Joh.; Ds. Servaes, King's; Mag. Smyth, King's; Ds. Spencer, Trin.; Whitby, Emm.; Ds. Williams (A. H.), Joh.; Ds. Wynne, Cath.

GUY'S HOSPITAL.—Mr. P. Mills has been appointed librarian to this hospital.

THE foundation stone of a new cottage hospital was laid at Saltash on the 5th inst.

THE ball recently held at Doncaster in aid of the funds of the local infirmary realised £67.

IT is reported that the cholera is increasing at Valparaiso, the number of cases amounting to 130 daily, and many of them proving fatal.

A HIGHLY successful ball in aid of the funds of the Italian Hospital, Queen's-square, Bloomsbury, was held on the 10th inst.

THE annual meeting of the governors of, and subscribers to, the North Devon Dispensary was held at Plymouth on the 4th inst., when satisfactory financial and general reports were presented and adopted.

SOME experiments have been recently made in St. Petersburg with the idea of slaughtering cattle by electricity, the results of which have been highly satisfactory—death in all cases being instantaneous.

MISS OXLEY of Guy's Hospital and Miss Loch of St. Bartholomew's Hospital have been appointed by the Secretary of State for India to the charge of the nurses whom it is intended to introduce into the military hospitals in India.

THE LIBRARY OF DON ARIZA.—The library and instruments of the late Dr. Ariza, the celebrated Madrid laryngologist, have been given by his widow to the throat department of the Instituto de Terapéutica Operatoria of the Spanish capital.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the fund, held on the 10th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £46 was distributed among the several applicants.

HARVEIAN SOCIETY OF LONDON.—The annual conversazione of the Harveian Society of London will be held in the Marlborough Rooms, Regent-street, on the evening of January 19th, at 8 P.M. After the delivery of the presidential address by Mr. Edmund Owen, the evening will be devoted to music, smoking, &c.

TRIPLETS.—The usual donation of £3 has been received from the Queen by Mrs. Dally of Tenby, who was recently delivered of three female children. The wife of an auctioneer at Woolwich has also within the past few days given birth to triplets—two boys and a girl. In both the cases the mothers and infants are doing well.

CONSULTATION OF PARIS PHYSICIANS AT MALAGA.—A wealthy resident of Malaga in Spain, whose mental condition is said to have given rise to differences of opinion amongst his medical advisers, has just obtained a visit from Professors Charcot and Hardy, of Paris. The opinion given by the eminent Frenchmen has not been made known.

ROYAL HUMANE SOCIETY.—The annual court of this Society was held on the 10th inst., Sir W. Fraser presiding. The report stated that 533 persons were rewarded during the past year with one gold medal, six silver medals, 140 bronze medals, seven bronze clasps, besides a large number of testimonials on vellum and parchment, and pecuniary rewards with certificates.

LITERARY ANNOUNCEMENT.—Surgeon-General A. Graham Young, whose book, "Crimean Cracks," found some favour at the time of its issue, has, we learn, another volume of later experiences in the press. It is "A Story of Active Service in Foreign Lands," and has been compiled from letters sent home from South Africa, India, and China between 1856 and 1871.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—The following members were elected on Jan. 9th as officers and councillors for 1888:—President: Mr. Daniel Corbett (Dublin). Vice-Presidents: Messrs. S. J. Hutchinson, J. H. Mummery, W. F. Forsyth, Richard Rogers (Cheltenham), G. C. McAdam (Hereford), and J. Cornelius Wheeler (Southsea). Treasurer: Mr. Thomas Arnold Rogers. Librarian: Mr. Felix Weiss. Curator: Mr. W. C. Storer Bennett. Editor of the Transactions: Mr. Frederick Canton. Honorary Secretaries: Messrs. Willoughby, Weiss (Council), C. J. Boyd Wallis (Society), and E. G. Betts (Foreign Correspondence).

PUBLIC MORTUARY AT KINGSTON.—A new public mortuary, with all the most recent modern sanitary and other appliances, together with arrangements and accommodation for post-mortem examinations, was opened on the 7th inst. at Kingston-on-Thames. The district coroner—Mr. A. B. Hicks—on the conclusion of an inquest, thanked the inhabitants and the Burial Board for providing this much-needed accommodation in so satisfactory a manner.

NOTIFICATION OF INFECTIOUS DISEASES.—At the meeting of the Bolton Town Council on the 11th inst. it was stated that the medical officer had sent a report to the Local Government Board approving of compulsory notification of diseases, and suggesting that power should be given to medical officers and nuisance inspectors to enter houses where infectious diseases existed. After a long discussion the report was disapproved by twenty-seven votes to twenty-four.

CENTENARIANS.—Intelligence from Constantinople announces the death, at the phenomenal age of 115, of M. Dimitrios Antippa. He was a Greek by birth, and in 1791 visited Paris, where he was lionised by the revolutionary society of the day.—Peter Laing, a centenarian who has entered on his 104th year, was entertained at Elgin on the 5th inst., on the occasion of his anniversary.—The death has just occurred at St. Mary's Cray, Kent, of William Lawrence, aged 101 years and 9 months.—Miss Harriet Williams has just died at Ramsgate, aged 104 years. She had enjoyed good health up to within a few days of her death.

FOOTBALL CASUALTIES.—At Bradford, on the 10th inst., the jury returned an open verdict in the case of Albert Mann, who died from injuries received while playing in a football match for the Manningham Rangers. The deceased sustained rupture of the kidneys.—Another local player, named Tom Robinson, died on Sunday from injuries received while playing in the Drighlington team at Keighley in the earlier part of the season.—An accident happened on the 10th inst. at Partick, Glasgow, while the West of Scotland Rugby team were playing a hard match with the Leeds St. John's. An English forward named Hutson received such a severe squeeze that he had to be carried off the field.

BOOKS ETC. RECEIVED.

ALLEN, W., & Co., Caxton House, Paternoster-square, London.
Functional Nervous Diseases, their Causes and their Treatment. By George T. Stevens, M.D. New York. 1887. pp. 217.
Operative Surgery on the Cadaver. By Jasper Jewett Garmany, M.D. New York. 1887. pp. 150.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Comments on the Report of the Committee on M. Pasteur's Treatment of Rabies and Hydrophobia. By Surg.-Gen. C. A. Gordon, M.D. 1888. pp. 96.
A Theoretical and Practical Treatise on Astigmatism. By Swan M. Bennett, M.D., with 59 Diagrams and Illustrations. 1887. pp. 245.

BLACKWOOD & SONS, Paternoster-row, London.
An Introductory Text-book of Zoology, for the Use of Junior Classes. By Alleyne Nicholson, M.D. Sixth Edition, revised and enlarged. 1887. pp. 250.

CHAPMAN & HALL, London.
Mechanics and Experimental Science as required for the Matriculation Examination of the University of London. By E. Aveling. 1888. pp. 268.

CHURCHILL, J. & A., New Burlington-street, London.
Transactions of the Ophthalmological Society of the United Kingdom. Vol. XVII. Session 1886-1887. pp. 339.
Medical Essays and Lectures. By Geo. Johnson, M.D., 1887. pp. 872.
The Treatment of Uterine Fibroids by Electrolysis. By W. H. Steavenson, M.D. 1887. pp. 24.
Year Book of Pharmacy and Transactions of the British Pharmaceutical Conference, 1886-87. Edited by Louis Siebold. 1887. pp. 696.
The Pathology of Intra-uterine Death. Being the Lumleian Lectures. 1887. By William O. Priestley, M.D. 1887. pp. 192.
The Refraction of the Eye. A Manual for Students. By Gustavus Hartridge, F.R.C.S. With 96 Illustrations. Third Edition. 1888. pp. 240.

CROSBY LOCKWOOD & SON, Stationers' Hall-court, London.
The Children of Silence; or, the Story of the Deaf. By Joseph A. Seiss, D.D. Philadelphia. 1887. pp. 208.

GRIFFIN, C., & Co., Exeter-street, Strand, London.
Outlines of Practical Physiology. Being a Manual for the Physiological Laboratory. By Wm. Stirling, M.D. With 142 Illustrations. 1888. pp. 309.

HODGSON, F., 89, Farringdon-street, London.

The Children: How to Study Them. A Course of Lectures. By F. Warner, M.D. 1887. pp. 80.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.

Infant Health, the Physiology and Hygiene of Early Life. By H. Percy Dunn, F.R.C.S. 1888. pp. 135.

Memory: What it is, and How to Improve it. By David Kay, F.R.G.S. 1888. pp. 334.

LEWIS, H. K., Gower-street, London.

The Middlesex Hospital Reports of the Medical, Surgical, and Pathological Registrars for 1886. By W. Pasteur and W. Roger Williams. 1887. pp. 347.

LONGMANS, GREEN, & Co., Paternoster-row, London.

Modern Theories of Chemistry. By Dr. Lothar Meyer. 1888. pp. 587.

A Treatise on the Diseases of the Dog; being a Manual of Canine Pathology, especially adapted for the Use of Veterinary Practitioners and Students. By J. H. Steel, M.R.C.V.S. 1888. pp. 287.

MACMILLAN & Co., London and New York.

A Course of Quantitative Analysis for Students. By W. N. Hartley, F.R.S. 1887. pp. 259.

A Treatise on Chemistry. By Sir H. E. Roscoe and C. Schorlemmer. Vol. III. 1888. pp. 544.

The Nervous System and the Mind. A Treatise on the Dynamics of the Human Organism. By Charles Mercier, M.B. 1888. pp. 374.

NEW SYDENHAM SOCIETY, London.

The New Sydenham Society's Lexicon of Medicine and the Allied Sciences (based on Mayne's Lexicon). By Henry Power, M.B., and Leonard W. Sedgwick, M.D. Fourteenth Part. Ilo—Kid. 1887.

NISBET, J., & Co., Berners-street, London.

"Nor'ard of the Dogger," or Deep Sea Trials, &c. By E. J. Mather, with Illustrations. 1887. pp. 376.

OLIVER & BOYD, Edinburgh.

The Transactions of the Edinburgh Obstetrical Society. Session 1886-87. Vol. XII. pp. 213.

SMITH, ELDER, & Co., Waterloo-place, London.

Diseases of the Bones, their Pathology, Diagnosis, and Treatment. By Thomas Jones, F.R.C.S. With Illustrations. 1887. pp. 369.

Dictionary of National Biography. Edited by Leslie Stephen. Vol. XIII. Craik—Damer. 1888. pp. 451.

STANFORD, E., Charing-cross.

Transactions of the Sanitary Institute of Great Britain. Vol. VIII. Congress at York. 1886-7. pp. 463.

WHITTAKER & Co., Paternoster-row, London.

Sewage Treatment, Purification, and Utilisation. By J. W. Slater, F.C.S. 1888. pp. 271.

How to restore the Walking Powers and Muscular Movement generally. By F. Graham-Bennett. Tenth Edition. 1887. pp. 35.

Verbatim Reporting; the Essentials of Success; by Oliver McEwan.—Philosophical Society of Glasgow; President's Address; Nov. 2nd, 1887.—"On some Sociological Aspects of Sanitation;" by James B. Russell, B.A., M.D.—On Movable Kidney; by David Grant, M.D.Ed. (Melbourne, Stillwell, & Co., 78, Collins-street East. 1887).—A Report on "Surra," or Pernicious Anæmia in the Lower Animals; by Veterinary Surgeon R. W. Burke, in charge of Station, Chief Veterinary Hospital, Saugor District. 1887.—Massage and its Applications; by Herbert Tibbits, M.D. (Churchills).—Index Medicus; compiled by John S. Billings, Surgeon, U.S. Army, and Dr. Robert Fletcher, M.R.C.S Eng.; vol. ix, No. 11, November, 1887 (Trübner and Co., 57, Ludgate-hill, London).—A Scheme for Local County and National Government, with Diagrams; by J. Clegg, M.R.C.S.L. (W. Mate and Sons, 62, Commercial-road, Bournemouth).—Empoisonnement par l'emploi des Tuyaux de Plomb pour la conduite des eaux Potables et des Boissons Alimentaires; par Louis Wagner, Architecte à Grenoble (George Carré, Libraire-Editeur, Boulevard St. Germain, 119).—Annual Report of the Health of the Imperial Navy, Japan, for the Nineteenth Year, 1886; by Takaki Kanehiro, F.R.C.S. Eng.—The Sunnyside Chronicle, December, 1887; vol. i., No. 7 (Alexander Burnett, High-street, Montrose).—Reports on the Royal Lunatic Asylum of Montrose for 1887 (Alexander Burnett, Montrose).—Farthing Dinners; by Geo. Herbert Sargant; Second Edition, revised (Simpkin, Marshall, and Co., London). 1887.—Die Temperatur-Verhältniffe der Haut; von Casimir Wurster (Berlin), December, 1887.—L'Iodisure; par Elizabeth N. Bradley, Docteur en Médecine de la Faculté de Paris (G. Steinheil, 2, rue Casimir-Delavigne, Paris).—Cured by an Incurable; by the Rev. P. B. Power, M.A., Illustrated (Elliot Stock, 62, Paternoster-row, London), 1888; Second Edition.—The Climatic Treatment of Phthisis in the State of Colorado; by M. Charteris, M.D., Professor of Therapeutics and Materia Medica, Glasgow University.—Guy's Hospital Reports; by N. Davies-Colley and W. Hale White; vol. xliv., being vol. xxix. of the Third Series (J. and A. Churchill, 11, New Burlington-street, London), 1887.—Forms for Systematically Recording Observations and Results of Treatment in Affections of the Throat and Nose, including Adjacent Associated Areas; by Scanes Spicer, M.D. (H. K. Lewis, 136, Gower-street, London), 1887.—The Tribulations of Tommy Tiptop, with Illustrations (Myra and Sons, 30 and 40, Bedford-street, London), 1887.—Third Annual Report for 1886 of the Mission Hospital and Dispensary at Amoy, in Connexion with the Presbyterian Church of England; by Archibald L. Macleish, M.B., C.M. (A. A. Marcal, Amoy), 1887.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1887 (Washington Government Printing Office), 1887.—Biliousness: its Causes and its Rational Treatment; by Adolphus E. Bridger, M.D., F.R.C.P.; third thousand (H. Renshaw, 356, Strand, London), 1887.—The African Question—English Africa: Shall Boer and German Sway it? by Charles Marvin (R. Anderson and Co., 14, Cockspur-street, Pall-mall, London). 1887.—Estracheces de la Uretra; por le Dr. D. Alejandro Settier, Madrid (Madrid), 1887.—An Elementary Text-book of Physiology; by J. M'Gregor Robertson, M.A., M.B., C.M. pp. 368, Illustrated.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BLOMFIELD, ARTHUR GEO., M.D.Aber., M.R.C.S., has been appointed Physician to the Devon and Exeter Hospital.

BOTHAMLEY, RICHARD B., M.R.C.S., L.S.A., has been appointed Medical Officer for the First District of the Bromley Union.

BOXALL, ROBERT, M.D. Brussels, M.R.C.P.Lond., M.R.C.S., has been elected Physician to the Samaritan Free Hospital for Women and Children, vice Dr. W. S. A. Griffith.

BROOKES, JAMES, L.R.C.P.Ed., L.F.P.S.Glas., has been reappointed Medical Officer of Health for the Wellington (Salop) Urban Sanitary District.

BROWN, PHILIP, M.D. King's Coll. Aberd., has been reappointed Medical Officer of Health for the Blaydon Urban Sanitary District.

BUCHAN, WILLIAM A., M.B., has been appointed Physician's Assistant to the Public Dispensary, Plymouth.

COVERNTON, CHARLES JAMES, L.R.C.P.Ed., M.R.C.S., has been re-appointed Medical Officer of Health for the Knighton Urban Sanitary District, Radnorshire.

GABRIEL, LEONARD MAURICE, M.B.Lond., M.R.C.S., late House-Surgeon to St. Bartholomew's Hospital, has been appointed House-Surgeon to the Hospital for Sick Children, Great Ormond-street.

GILFORD, HASTINGS, L.R.C.P.Lond., M.R.C.S., has been appointed an additional Surgeon to the Reading Dispensary.

GLANVILLE, MARCUS, M.R.C.S., L.S.A., has been appointed House-Surgeon and Secretary to the Dorset County Hospital.

JELLEY, RICHARD, M.R.C.S., L.S.A., has been appointed an additional Surgeon to the Reading Dispensary.

LEWIS, LEWIS, L.R.C.P.Lond., M.R.C.S., has been appointed one of the Visiting Medical Officers of the South Lambeth, Stockwell, and North Brixton Dispensary.

M'INTYRE, ALEXANDER, M.B.Glas., L.R.C.S.Ed., has been reappointed Medical Officer to the Troon Lodge of Oddfellows.

MACKENZIE, ARTHUR C., L.R.C.P.Ed., L.R.C.S.Ed., L.F.P.S.Glas., has been appointed Assistant House-Surgeon to the General Hospital, Birmingham.

MCMURRAY, J., M.D., M.Ch., has been appointed Visiting Medical Officer to the Kirkdale Industrial Schools.

M'NICOL, P. B., M.B., C.M.Ed., has been appointed Resident Surgeon to the Stirling Infirmary, vice Robertson, resigned.

MAY, HENRY, L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Aston Manor Urban Sanitary District.

NEWCOMBE, FRANK, M.R.C.S., L.S.A., has been reappointed Medical Officer for the Ancaster District of the Grantham Union.

PENROSE, FRANCIS G., M.D., M.R.C.P.Lond., M.R.C.S., has been elected Curator of the Pathological Museum at St. George's Hospital.

PROWSE, WM. BYASS, M.R.C.S., L.S.A., has been appointed Medical Officer of Health to the Acton Local Board.

REVELL, RICHARD CARTER, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Saltash Urban Sanitary District.

SHANNON, ROBERT ALEXANDER, L.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer for the Workhouse of the Bromley Union.

SHAW, THOMAS, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer of Health for the Hucknall-under-Huthwaite Urban Sanitary District, vice Standen, whose appointment has expired.

SIMMONS, EDWARD W., M.B.Dur., M.R.C.S., has been appointed Medical Officer for the Second District of the Worcester Union.

STONE, ARTHUR W., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Third District of the Ripon Union.

TILL, GEORGE W., L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer for the Workhouse of the Worcester Union.

TRAVIS, WILLIAM O., M.B., M.S.Durh., has been appointed Medical Officer for the Haslingden District of the Nantwich Union.

TURNER, FREDERICK, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Buxton Urban Sanitary District.

WEDGWOOD, WM. BRACKENBURY, M.R.C.S., L.S.A., has been appointed House-Surgeon to the Horton Infirmary, Banbury.

WHISTON, PHILIP, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth, vice Woollcombe, promoted.

WOOLLCOMBE, WALTER L., L.R.C.P Lond., M.R.C.S., has been appointed House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth, vice Lucy, resigned.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BELGRAVE HOSPITAL FOR CHILDREN, Gloucester-street, S.W.—House-Surgeon.

BIRKENHEAD BOROUGH HOSPITAL.—Senior House-Surgeon. Salary £90, without extras.

BIRMINGHAM GENERAL HOSPITAL.—Two Assistant House-Surgeons. Residence, board, and washing, but no salary.

BRENTFORD UNION.—District Medical Officer. Salary £100 per annum, increasing by annual instalments of £5 to £130, vaccination, surgical, and midwifery fees in addition.

BRISTOL GENERAL HOSPITAL.—Physician's Assistant. Salary £50 per annum, with board, lodging, and washing.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon. Salary £100, with rooms and attendance.

BRIXTON, STREATHAM, AND HERNE HILL DISPENSARY.—Resident House-Surgeon. Salary £150 per annum, with furnished apartments, attendance, coal, and gas.

BROMLEY UNION, Kent.—District Medical Officer. Salary £80 per per annum, with vaccination fees, and extras about £15.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Medical Registrar and Pathologist. An honorarium of 50 guineas at end of year.—Clinical Assistant in the Out-patient Department.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary £40 per annum, with board, lodging, and washing.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary £70 per annum, with board and residence in the institution.

RADCLIFFE INFIRMARY, Oxford.—House-Surgeon. Salary £80, with board, lodging, and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Physician.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer. Moderate remuneration with board.

Births, Marriages, and Deaths.

BIRTHS.

BARRETT.—On the 9th inst., at 13, Rillbank-terrace, Edinburgh, the wife of William H. Barrett, M.B., of a son.

BOTHAMLEY.—On the 9th inst., at Cadogan-terrace, Victoria-park, the wife of W. Parkinson Bothamley, M.R.C.S., L.S.A., of a son.

CORSER.—On the 24th ult., at Bourton-on-the-Water, Gloucestershire, the wife of Francis R. S. Corser, M.B., C.M., of a daughter.

GREVES.—On the 30th ult., at Rodney House, Bournemouth, the wife of Hyla Greves, M.D., of a daughter.

POLLARD.—On the 6th inst., the wife of J. Pollard, M.R.C.S., Queen Anne-street, W., of a son.

REAN.—On the 9th inst., at 36, Vernon-terrace, Brighton, the wife of W. H. Rean, M.R.C.S.Eng., &c., of a daughter.

WIGHT.—On the 10th inst., at Liverpool-road, N., the wife of George Wight, M.B., of a son.

MARRIAGES.

BULLAR—OLLEY.—On the 10th inst., at St. Peter's, Lee, by the Rev. R. J. Simpson, M.A., Vicar, John Follett Bullar, M.B.Cantab., F.R.C.S., son of the late John Bullar, Barrister-at-Law, of Bassett-wood, Southampton, to Gertrude Elizabeth, daughter of the late Frederick Olley, of Helion's Bumpstead, Essex.

KIRKLAND—GARRETT.—On the 5th inst., at St. Mary's Parish Church, Cheltenham, Robert Kirkland, M.B., to Irene Laura Elizabeth, elder daughter of the late Thos. Garrett, Esq., of Ellington House, Seaton, Devon.

VISSER—SMITH.—On the 29th ult., at St. Luke's, West Norwood, William James Visser, L.R.C.S.Ed., L.R.C.P.Ed., to Eliza Angus, fifth daughter of the late David Smith, Esq., of Jamaica.

DEATHS.

BOOKEY.—On the 11th inst., William John Brownrigg Bookey, R.N., Medical Officer of Devonport Dockyard.

BRADFORD.—On the 4th inst., at Beech Bank, Harrow, Edwd. Bradford, F.R.C.S., F.L.S., Deputy Inspector-General of Hospitals, and Hon. Surgeon to the Queen, aged 86.

DAVENHILL.—On the 5th inst., at St. John's House, St. John's, Worcester, Robert Septimus Davenhill, M.R.C.S., L.S.A., aged 39.

GAMMAGE.—On the 7th inst., at his residence, 155, Wellingboro'-road, Northampton, Robert George Gammage, aged 67.

JAMESON.—On the 8th inst., at Churchfield, Chigwell-row, Emily, the beloved wife of George William Jameson, Brigade-Surgeon, Indian Medical Service, aged 48.

MILLER.—On the 5th inst., at his residence in Glasgow, Hugh Miller, M.D., F.F.P.S.Glas., aged 53.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, January 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Reginald Harrison: On Some Points in the Surgery of the Urinary Organs. (Lettsomian Lectures.)

Tuesday, January 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Mr. George John Romanes: Before and after Darwin.

SOCIETY OF ARTS.—8 P.M. Mr. A. J. R. Trendell: The Colonies and Dependencies of the Netherlands.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Norman Moore: Carcinoma of Gall-duct.—Mr. W. K. Sibley: Abscess in Lung and Brain, and Tumour of Pituitary in an Ewe.—Mr. Symonds: Epitheliomatous Cyst in Neck.—Mr. H. Fenwick: Etiology of Vesical Growths.—Dr. Collier: A recent specimen of Charcot's Disease of the Knee-joint.—Professor Crookshank: Further Inquiries into the so-called Hendon Cow Disease and its relation to Scarlatina in Man.—Mr. R. W. Parker: Specimens of Bone Disease.—Mr. Godlee: Specimens of Rickety Bones.

Wednesday, January 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-ST.—Operations, 9 A.M.; Saturday, same hour.

SOCIETY FOR THE STUDY OF INEBRIETY.—4 P.M. Dr. Norman Kerr: The Treatment of Inebriety.

SOCIETY OF ARTS.—8 P.M. Messrs. John Leighton, James Withers, and John Imray: Methods of Taking the Ballot.

Thursday, January 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. Hubert Herkomer: The Walker School.

Friday, January 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. The discussions will be continued on Mr. Wynter Blyth's paper on "The Contagion of Cancer," and on Mr. G. Bischof's paper on "Extension of Time of Culture in Dr. Koch's Bacteriological Water Test by Partial Sterilisation with Special Reference to the Metropolitan Water Supply."—Dr. Rowland: An Improved Method of Sewer Ventilation.

ROYAL INSTITUTION.—9 P.M. The Right Hon. Lord Rayleigh: Diffraction of Sound.

Saturday, January 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M

ROYAL INSTITUTION.—3 P.M. The Right Hon. Lord Rayleigh: Experimental Optics.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 12th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 6	30·17	S.W.	39	39	...	49	36	...	Foggy
,, 7	30·29	W.	47	46	56	50	39	·12	Overcast
,, 8	30·53	S.W.	49	49	...	53	44	...	Foggy
,, 9	30·74	W.	47	47	...	48	46	...	Foggy
,, 10	30·73	W.	38	37	...	48	36	...	Foggy
,, 11	30·70	W.	38	36	...	41	35	...	Foggy
,, 12	30·60	N.	37	37	...	39	36	...	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

A CURIOUS DISPENSING BLUNDER.

THE importance of care in making contractions in prescriptions is illustrated by a case which is reported by a German medical journal, where, fortunately, the blunder was detected before any harm had been done. The prescriber, instead of writing "℞ Hydratis chlorali" in full, naturally wrote, "℞ Hydr. chloral., 5; aqu. destill., 100. M. D. S." This, instead of conveying to the dispenser, who was a qualified apothecary's assistant, the idea of a solution of five grammes (seventy-seven grains) in 100 grammes of water, was read by him as a direction to mix five grammes of hydrargyrum chloratum—i.e., subchloride of mercury—with 100 grammes of water, and he copied (?) the prescription into the prescription-book thus: "Calomel, 5; aqu. destill., 100." Had not the customer remarked the peculiarity of the mixture dispensed some disagreeable results might have ensued. The German Pharmacopœia does not admit the term "hydras chlorali," though this was Liebreich's original term, but directs that chloralum hydratum shall be always used.

T. W. asks for some information about the best time to start on a voyage to China; also about the Glen Line.

Mr. J. Lemaire is referred to a general notice at the head of this column.

PERMANENT SUPPRESSION OF THE SALIVARY SECRETION (?)

To the Editors of THE LANCET.

SIRS,—A case of the above recently came under my notice, and as it is unique in my experience I should be glad if any of your readers could offer me some information on the subject. The patient is a lady aged sixty, very thin and of a nervous temperament, and although not vigorous has always enjoyed fairly good health. She does not consider that the absence of saliva has made any difference to her general health. She gives the following history. About ten years ago, when in apparently good health, with the exception of a nervous shock caused by the news of the sudden death of a friend, she awoke one morning with an intense dryness of the mouth and throat, which prevented her from speaking or swallowing, and caused a sensation of choking. She found relief by constantly sipping cold water; but the distress was so great that for some nights she was unable to sleep. The discomfort gradually abated, but the tongue and mouth have remained perfectly dry ever since. The tongue has now the appearance of a piece of dry raw beef. There are no signs of papillæ on the anterior surface of the tongue, but the circumvallate are distinguishable.—I am, Sirs, yours truly,

Great Crosby, January, 1888. WILLIAM ROWLANDS, M.R.C.S.

PURIFICATION OF WATER.

S. J. K.—Precipitation by lime (Clark's process) removes all the temporary hardness from water, and the precipitate carries down with it suspended matters of all kinds. It is only by analysis that the quantity of lime required can be ascertained. The process is inexpensive, but somewhat troublesome, as considerable time is required for deposition and the precipitate must be frequently removed. In the Porter-Clark process a filter-pump is used; but this involves considerable outlay.

R. C. B.—1. We know of no recognised charge for such a club, which is not very common. Children require even more attendance than grown-up persons, and the rate of charge should be the same, or as near thereto as possible, something being allowed for the size of families.—2. Provided that our correspondent upholds the rate of charge and disallows all touting methods of advertising it, we do not see that he is called on to refuse to attend the club.

Junior Member and *Adviser* have not enclosed their cards.

EPSOM COLLEGE.

To the Editors of THE LANCET.

SIRS,—I have perused the annotation in your issue of Jan. 7th, and as it requires some modification to make it accurate, I trust you will permit me to add what is necessary. It is true that the institution was in 1885 some thousands of pounds in debt, and that this indebtedness was practically extinguished in 1887. This was effected partly by the powerful effort made by Sir Andrew Clark, and partly by means of a legacy from Sir Erasmus Wilson. The debt was therefore paid out of capital, and not out of surplus income derived from the school, as your annotation seems to suggest.

It is true that alterations have been made in the bye-laws, but this has been done chiefly to remove certain restrictions and to make the benefits of the College more accessible to the profession, especially to the public medical services. This will be seen from inspection of the bye-laws.

No increase has been made in school fees. It is true that it is proposed to require the boys, other than foundationers, to pay for their own books, and this appears to be right, for the following reasons. During past years the school has been worked at a loss, and this was partially the cause of the debt which was cleared off in 1887. It is essential that debt shall not be re-incurred, and that every economy consistent with efficiency shall be practised. On inquiry the council found that it is the custom in other public schools that the parents shall pay for the books their sons use. During the year 1886 the average cost of books supplied to each boy was 17*s.* 6*d.* each term, and hence a very considerable saving will be effected by applying this system to the College, without imposing any undue or unusual burden on the parents, and the boys and their parents will have a direct interest in making the books last as long as possible.

On the general principle you must further permit me to say that the council hold it to be their duty to provide a good education to the sons of medical men at as nearly prime cost as possible, but not under prime cost; in other words, not to apply funds provided by the subscribers to the benevolent side of the institution in supplementing the deficiency on that part of the school which should be self-supporting. The medical profession, however, may rely on having the full benefit of any economies which can be effected after the school has been rendered self-supporting.

The question of extras is one which need not be entered on here; it must be left to the discretion of parents themselves. They have been introduced in all cases at the request of parents, and are entirely optional.

I feel sure that none of the medical profession who can afford to pay for the education of their sons will desire to benefit by funds contributed specially to those differently situated. If fathers think they can obtain a cheaper and a better education elsewhere there is nothing to be said, except that in attempting to arrive at a determination they would probably get better and more reliable information by applying to the officers of the institution, and by making a personal inspection of the school, than by depending upon reports they read in the newspapers. It gives the council great satisfaction to find that the entries for the coming session are of a most gratifying character.

I am, Sirs, faithfully yours,

C. HOLMAN,

Reigate, Jan. 9th, 1888. Treasurer of Epsom College.

"SLEEP AND CYCLING."

To the Editors of THE LANCET.

SIRS,—I notice in your account of my paper on this subject recently read at the meeting of the Society of Cyclists one or two errors, which I should be glad if you would correct in your next issue. The first error is saying that I rode a *bicycle* from Land's End to John o' Groats for the first time in 1882. I have never ridden a bicycle in my life, but have ridden a *tricycle* many thousands of miles each year for the last nine years, and still adhere to this safer method of locomotion. I rode a tricycle weighing 110 lb. from Land's End to John o' Groats (*vid* the east coast route), a distance of 1007 miles, in a fortnight for the first time in 1882, and my average allowance of sleep was about eight hours out of twenty-four; and on the second occasion I rode a lighter tricycle between the same places (*vid* the west coast route), 865 miles, in eight days and a half, with about the same allowance of sleep per diem. Beyond restlessness at night when doing these rides, caused by vibration during the day, I think I have experienced no bad after-effects from the exertion, and am now in perfect health. I am, Sirs, yours faithfully,

January 11th, 1888. A. NIXON.

"THE LOVES OF THE BACILLI."

UNDER this heading the following rather humorous lines were published last week in the *St. James's Gazette*:—

Quoth Bacillus to Bacilla
(Surely everything has sex):
"It is quite enough to fill a
Soul with pride, to see the necks
Of these mighty men of Science
O'er the microscope bent low,
While beneath them in defiance
Spins the merry Vibrio.

"Proud am I to think, my Comma,
While the world rolls on its way,
Every fell disease springs from a
Fairy filament, they say.
Autocrats that tower Titanic
Have been known to bow to me;
Mighty potentates in panic
Disinfect at thought of thee.

"Rash would he be who should presage
That no germs behind us are;
We are part of that great message
Which outrings 'twixt earth and star.
What by thousands or by tens is
Multiplied, in vain they show;
Something lies beyond his lenses
Mortal man may never know!

"We are greater, my Bacilla,
Than all monarchs; for meseems
We need but exist to fill a
Strong man's brain with fever-dreams.
Such the thought my passion kindles,
O my microscopic bride:
Kiss me! although twenty Tyndalls
Have their eyes upon the slide!"—H. S. C.

Dr. I. S. Stone.—1. Yes.—2. Except during the long vacation—August and September.—3. Our correspondent had better get an introduction to a member of the staff of any hospital.—4. Yes.—5. It would hardly be necessary to bring a microscope.

Rustic M.R.C.S.—Electricity is not likely to afford permanent benefit. A 1-per-cent. solution of nitro-glycerine, in doses of one minim three or four times a day, might be of service.

THE USE OF COCAINE SUBCUTANEOUSLY IN OPERATIONS ON THE LOWER ANIMALS.

To the Editors of THE LANCET.

SIRS,—For more than two years I have constantly employed cocaine subcutaneously for the production of local anæsthesia in the removal of tumours, &c. from the lower animals. A 5 per cent. solution in water is freshly made for each operation. Where large growths are to be dealt with, and of course varying with the extent to be affected, from ten to twenty drops are injected at each of three or four points underneath the skin, and into the part to be removed.

In October, 1885, after this preparation, I excised from the elbows of a spirited horse, in the standing position, unrestrained save by the ordinary bridle, two tumours, weighing together 11 lb. 13 oz. The larger, which was intimately associated with the skin, occupied seventeen minutes in removal, and until the last stitch was placed in the wound there was no evidence of sensation. In the same manner I have operated on many larger and smaller subcutaneous growths in various parts of the body of the horse.

In excision of a portion of the plantar nerves a hypodermic injection of from twelve to fifteen drops of the solution at the point of operation removes sensation from the skin and underlying tissues, apparently including the nerve trunk; for if, when it be intended to divide the inner and outer nerves, an injection of cocaine be made on one side only of the limb when the nerve of that side is laid bare and pinched by the forceps, there is no manifestation of sensation; while if the nerve of the other side be similarly grasped, the limb is usually at once retracted.

In "firing" (though there may exist some question as to the advisability of its use in some cases where the actual cautery is deemed essential) cocaine is most useful from the operating point of view. In February last I decided to "fire" the stifle of a vicious horse with diseased patellar bursæ. The animal refused to submit to the ordinary means of restraint. After some difficulty two injections of cocaine were made, and in four minutes the animal stood absolutely still while the skin was scored with seventeen lines.

In the case of dogs, I have continually used the alkaloid in operations on the feet, eyelids, conjunctivæ, mammæ, &c., with equal freedom from pain to the dogs and with ease to myself. I have never noticed any untoward constitutional effect, and am disposed to think that the healing process is favoured.

I am, Sirs, yours faithfully,

JOHN PENBERTHY, F.R.C.V.S.,
Lecturer on Therapeutics at, and Surgeon to, the Hospital, Royal Veterinary College.

Camden-town, N.W., Jan. 9th, 1888.

"ROUGH-AND-READY MEDICAMENTS."

To the Editors of THE LANCET.

SIRS,—I subjoin, in continuation of my former series, three more illustrative examples of this kind of treatment; and simply intimating that they deal with three different phases of disease or injury, I will leave them to speak for themselves.

1. Describing the case of a lame Arab, who, although he felt no pain, and notwithstanding that no foreign body was perceptible in any part of the limb in which he had been shot some years previously, nevertheless persisted in saying that a ball was sticking somewhere in his hip, old Martin Honighberger says ("Thirty-five Years in the East," pp. 32-3), in allusion to the failure of other surgeons: "It occurred to me that exercise was necessary; so I ordered him to walk a great deal, to beat the ground firmly, and caused the hip to be tapped on that part where I presumed the ball to be. The parts were also rubbed frequently with the hand downwards, and an emollient ointment was also employed. After three weeks the man felt a pain in the hollow of his knee, caused by the presence of an extraneous substance. I examined the part, and felt a protruding body, which was easily moved from one place to another. It was, in fact, the ball, which I easily cut out, and the patient was very soon cured of his lameness." He might add that this is the *modus operandi* of quacks and "wise women" all the world over; and there can scarcely be a doubt that by readjusting a slightly displaced bone or tendon, rejoining a ruptured fibre, or resetting other local defects or derangements, it often succeeds when more scientific or technical methods fail.

2. Alluding to the failure of a sailor to extract with his penknife a splinter of wood from the foot of one of his comrades, which he had contracted on shore at Otaheite, Commodore Byron says (Hawkesworth's "Voyages of Discovery in the Southern Hemisphere," vol. i., p. 485): "Our good old Indian, who happened to be present at the time, called over one of his countrymen, ... who, having looked at the seaman's foot, went immediately down to the beach, and taking up a shell broke it to a point with his teeth. With this instrument in little more than a minute he laid open the place, and extracted the splinter. In the meantime the (former) old man ..... went a little way into the wood, and returning thence with some gum, which we afterwards learned came from the apple-tree, applied it on a piece of cloth to the wound. The latter was perfectly healed in two days' time." Save in the matter of its cost and complexity, I fail to see wherein Listerism differs from, or is any improvement on, "this good old rule, this ancient plan" of this savage, or at least untutored, surgery.

3. Old Burton, the quaint, curious, erudite author of that incomparable compilation, "The Anatomy of Melancholy," is responsible for the following stories, which are understandable of all. Dwelling, at p. 370, on the lawfulness of deceiving "by some fained lye, strange newes, witty device, or artificial invention" those who suffer from certain harmless illusions, he says: "A man supposed his nose so big that he should dash it against the wall if he stirred. His physician took a great piece of flesh, and holding it in his hand pinched him by the nose, making him believe that flesh was cut from it. Forestus had a melancholy patient, who thought he was dead. He put a fellow in a chest like a dead man by his bed's side, and made him reare himself a little and eat. The melancholy man asked the counterfeit whether dead men use to eat meat. He told him, Yes. Whereupon he did eat likewise, and was cured." I am, Sirs, your obedient servant.

Auriol-road, W., Jan. 1st, 1888. W. CURRAN.

"ROUND SHOULDERS."

To the Editors of THE LANCET.

SIRS,—Referring to the letter of your correspondent, "Ever Grateful," in your issue of Jan. 7th, may I suggest a remedy for the above tendency which has come under my notice as an officer of Volunteers, and which I have of late practised—from choice, not necessity, and as an agreeable and healthy exercise after the morning's cold bath. It consists in the series of "extension motions" laid down in the army "Field Exercises" to be practised by recruits. The instructions for the movements are to be found in the "Field Exercises" (1884), at page 11 *et seq.* The little red book costs 1*s.*, and may be obtained from Clowes and Sons, Charing-cross; Longmans, Paternoster-row, or through any bookseller. Practice proves that one can go through the three exercises very thoroughly, repeating each motion from ten to forty times, in from three to five minutes; so that not much time need be given up to the treatment. I have found a definite improvement in the efficiency of my chest and muscular system since starting the exercises.

I shall be most happy to afford your correspondent any further information that it may be in my power to give.

I am, Sirs, yours faithfully,

Jan. 9th, 1888. ROYAL BERKS.

Mr. A. Hope—We regret we are not in possession of the particulars of the case.

HYDROPHOBIA.

To the Editors of THE LANCET.

SIRS,—Referring to the letter of Dr. Maccall in your issue of Dec. 24th, 1887, on the subject of hydrophobia, I beg to say that some months ago I published in THE LANCET a plan of treatment somewhat in accord with his letter on the subject. I think the hydrophobic virus destroyer a most valuable addition to our means of treatment and well worth attention. I am, Sirs, yours truly,

Leamington, Dec. 29th, 1887. F. E. WILKINSON, M.D.

THE HUNTERIAN MUSEUM.

To the Editors of THE LANCET.

SIRS,—May I ask you to insert the following in an early issue of your journal?

Having noticed in your issue of to-day that the Royal College of Surgeons is a very rich medical corporation, that a large sum of money has been spent upon building, &c., may I suggest that immediate steps be taken to light the museum, as under the existing circumstances it is with difficulty that one preparation can be distinguished from another. At the best of times the light is insufficient; but at this season of the year, when it is light during but a short period of the day—more especially so if there be fog,—it is only just that attention should be called to this evil. Many students come miles to scan the fine collection of pathological specimens, and invariably find the museum closed or semi-darkness throughout the building, rendering it impossible to find or see any specimen desired. Two or three electric lights would put an end to this state of things; they could be easily and quickly placed in working order, and the cost would be nominal. The advantage gained to numerous medical students would be great, as, I need scarcely say, the recognition of these specimens form a large part of the *viva-voce* examination for final membership.

I remain, Sirs, yours very truly,

Dec. 31st, 1887. A COUNTRY STUDENT.

"CASE OF TWINS WITH COMPLICATED PRESENTATION."

To the Editors of THE LANCET.

SIRS,—In reference to the case which you kindly published in your last issue (p. 14), I regret to say that I have learned since leaving the locality that the twin boy developed gangrene of the arms and legs, and died on the ninth day. Unfortunately, the mother was attacked with septicæmia, and suddenly died on Nov. 27th—twenty-five days after delivery. I am, Sirs, yours truly,

Jan. 9th, 1888. HARRY B. MAUNSELL.

ERRATUM.—In our paragraph headed "Presentations," p. 51, the name "Mr. R. H. Lucy" should have been Mr. R. H. *Lucy*. Besides the articles mentioned as forming the testimonial an electro-plated reading lamp was presented by the matron and nurses.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Byrom Bramwell, Edinburgh; Dr. C. B. Radcliffe, London; Dr. Sedgwick Saunders, London; Mr. W. Whitehead, Manchester; Mr. Saxon Snell, London; Dr. F. Taylor, London; Mr. Nixon, London; Mr. C. Heath, London; Mr. Penberthy, London; Mr. E. Grün, London; Mr. E. Bliss, London; Dr. J. B. Harris, Norwood; Messrs. Cromby and Co., Edinburgh; Mr. H. B. Maunsell, Waterford; Mr. H. Jean, Monte Carlo; Dr. Baine, London; Mr. Franji, London; Messrs. C. Griffin and Co., London; Mr. F. Treves, London; Rev. F. Whitton, Upper Burmah; Mr. Higmore, Liverpool; Mr. Lake, Barnes; Dr. Blagdon Richards, London; Dr. H. T. Griffiths, London; Messrs. Takata and Co.; Dr. O'Neill, Lincoln; Mr. A. Davies, London; Messrs. G. Mason and Co., London; Dr. M. Handfield-Jones, London; Mr. Hine, East Yorks; Mr. Godlee, London; Mr. R. W. Green, Leeds; Mr. Howard Marsh, London; Dr. J. M. Fothergill, London; Mr. R. Stevens, Lyme Regis; Dr. Tatham, Salford; Dr. W. J. Collins, London; Dr. Percy Boulton, London; Mr. H. R. Gough, London; Dr. Niven, Oldham; Dr. I. S. Stone, Lincoln, Va.; Dr. McCaw, Woolwich; Dr. Hauser, Leipsig; Mr. W. L. Braddon, Upton-on-Severn; Mr. A. Legge-Roe, Hull; Dr. Dowdeswill, London; Mr. W. Coke, Dudley; Dr. Craven, St. Albans; Mr. R. Edwards, Carnarvon; Mr. Dunn; Mr. J. Creeth, Castleford; Mr. S. Broome, Ryton; Mr. Hutton; Mr. T. Hills, Saffron Walden; Mr. H. J. Barker, Thurston; Mr. Vasey; Mr. T. S. Smith, Hinckley; Mr. B. Augier, Namur; Mr. Richardson, Petworth; Mr. W. McDonald, Glasgow; Dr. Martin, Walkden; Mr. McRae; Dr. Ralph, Burton-on-Trent; Dr. Kennedy, Albury; Dr. Black; Dr. Montero, Correina; Mr. Eccles; Mr. Rendell; Mr. J. B. Allen; Mr. Diggens, Lancaster; Dr. Benthall, Southsea; Mr. Finch, Hulme; Mr. Law, Wiesen; Mr. Berthier, Paris; Mr. May; Mr. Garrad; Mr. Stanwell, Rochdale; Mr. Bigg, London; Mr. Shute, London; Messrs. Hewlett and Son, London; Mr. Myring, London; Mr. Catten, Harrogate; Mr. Schacht, Clifton; Mr. Sehall, London; Mr. Scougal, Huddersfield; Messrs. Burgoyne, London; Dr. Brewis, Leeds; Mr. Olive, London; Mr. Brooks, Aberdeen; Dr. Davis, Harrow; Mr. Lawson, Wigan; Mr. Evans, Oswestry; Mr. Pentland; Mr. Birchall, Liverpool; Mr. Stewart; Mr. Corbishley, Macclesfield; Dr. Coghill, Birmingham; Mr. W. Baggot, Blandford; Dr. Wright; Mr. Lancaster, St. Helens; Dr. Finch, Salisbury; Dr. Balam, Rugeley; Mr. Hopkins, Plymouth; Dr. Morocini, Padua; Mr. Crasweller; Dr. A. P. Smith, Ullapool; Mr. Curran; Mr. R. James, Worcester; Dr. Johnson, Worksop; Mr. Thwaites, Bristol; Mr. Bowkett, Poplar; Miss Maguire, Cork; Mr. Jackson, Workington; Mr. Hope; Mr. E. Chesshire, Birmingham; Mr. L. Taylor, Walthamstow; Mr. Howard; Dr. Mallins, Wotton; Mr. J. B. Farre, London; Mr. E. Baily, Oban; Mr. Whittaker; Mr. Lawrence; Mr. Paterson; Mr. B. Richards, London; C.; Preston Public Library; S. J. K.; R. C. B.; Surgeon; Royal Berks; Grantham Hospital; Studens; Surgeon, Edmonton; M.A., M.D.; The Society of Apothecaries, London; Junior Member; Festina Lentè; Western Suburb; P.S.; C. C.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Popham, Wellington; Dr. A. Wetherell, Linthorpe; Dr. Allwright, Bourne End; Dr. A. S. Loftus, Fulham; Mr. Morris, Bilston; Messrs. Blake and Co., Leeds; Messrs. Preston, Huddersfield; Mr. Nangle, Cape Colony; Mr. John, Llanelly; Mr. Jessett, London; Messrs. Shent and Sons; Mr. A. Kapetyn, London; Mr. Leggatt, Sandwich; Mr. Paul, London; Mr. Wormald, Manchester; Mr. Ricker, St. Petersburg; Mr. Cullman, Eunis; Mr. Challenor, Askam-in-Furness; Mr. Dedman, Beaconsfield; Mr. Groves, Dorchester; Mr. A. Batchelor; Dr. Davies, Lenham; Mr. Sutton, Reading; Prof. Fraser, Dublin; Dr. Redwood, Rhymney; Dr. Edwards; Mr. Purland; Dr. Barbour; Dr. Garstang, Knutsford; Mr. H. L. Jones, Bristol; Dr. Halkett; Messrs. Maclachlan and Stewart, Edinburgh; Mr. W. T. Bottomley; Messrs. Liberty and Co., London; Mr. Sedgwick, Cambridge; Mr. Fairfax; Dr. Rean, Brighton; Mr. Heywood, Manchester; Mr. Whitworth, St. Agnes; Mrs. Roe, Dorchester; Dr. Wood, Pontypool; Dr. Phillips; Mr. H. Edmonds; Miss Marley, Croydon; Mr. Gratan, Wigan; Fortiter; Noon; A. B., Saltburn; X. Y. Z.; Mastoid; M.B., C.M.; Anderson's College, Glasgow; Horace; C. D., London; A.M.A., London; Bonâ Fide; Superintendent; Omega; Cash, Hull; Scalpel; H. D.; H. G., Balham; R. A. B.; Physician; M. S. D.; Forceps; Medicus, Gower-street; Quinine; Doctor, Bristol; X., Preston; Cornea; Medicus, Manchester; Alpha, Tyrone; M.P.; Faith, Portland-road.

The Housewife, Ireland's Gazette Royal and National, St. Moritz News, Newcastle Daily Leader, Western Mail, Leicester Daily Post, Syracuse Daily Journal, &c., have been received.

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